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ABSTRACT

The fifth volume in this series on Serbo-Croatian-English contrastive analysis contains seven articles. They are: "The Use of Sector Analysis in Contrastive Studies in Linguistics," by Thomas K. Adeyanju; "A Compromise System," by Rudolf Filipovic; "Case Frames and Transformations for Clause-Expanded Adjectives," by Vladimir Ivir; "Some Crucial Problems in the Theory of Contrastive Linguistics," by Carl James; "How Can Contrastive Linguistics Studies Help Foreign Language Teaching?," by W. R. Lee; "Existential Sentences in English and Serbo-Croatian," by Ljiljana Mihailovic; and "A Reinterpretation of Verbal Aspect in Serbo-Croatian," by Midhat Ridjanovic. (CLK)

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THE YUGOSLAV SERBO-CROATIAN-ENGLISH CONTRASTIVE PROJECT

Director: Professor Rudolf Filipović, Ph. D.

B. STUDIES

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THE USE OF SECTOR ANALYSIS IN CONTRASTIVE STUDIES IN LINGUISTICS

Introduction

This article attempts to discuss Professor Robert L. Allen's "Sector Analysis," a new branch of tagmemic analysis developed at Teachers College, Columbia University during the last ten years or so. Its analytic procedures and its potential as a tool for the contrastive study of English and other languages can be seen in the five doctoral studies discussed below.

Allen's approach to linguistic analysis is described in his English Grammars and English Grammar,[1] The Verb System of Present-Day American English,[2] in the work texts Exploration 1 and 2,[3] and Discovery 1 and 2[4] (written in collaboration with others), and in his paper "Sector Analysis: From Sentence to Morpheme in English," which appears in the Georgetown Monograph Series on Languages and Linguistics, No. 20 (1967).[5] In his analysis, Allen is primarily concerned with written English. This includes informal and conversational written English as well as formal written English. In the analysis of other languages, however, sector analysis has been applied to both written and spoken corpuses.

The Theory Underlying Sector Analysis

According to Allen, Kenneth Pike's tagmemic theory provided "a strong theoretical foundation" for sector analysis, although sector analysis is not derived from Pike's theory.[6] Sector analysis is based on the premise that a sentence may be defined in terms of a fixed sequence of basic positions which, if filled, would appear in the same order in the great majority of sentences, although in any given sentence one or more of these positions may be left vacant.[7] Sector analysis also emphasizes the importance of analyzing the constructions embedded in a sentence on succeeding layers instead of all on one layer. "The sectors of a sentence are defined as the positions occupied by any adverbial, the subject, a middle modifier, a predicate modifier, the verbal, and the complements."[8] Three sub-sectors are distinguished in the complement sector. The function of the filler of a given position in a sentence is determined primarily by the position it occupies in the construction of which it is a part, which in turn fills a single position (or "sector") on the next higher layer in that sentence. Therefore, the first task in analysis is to determine the hierarchy of functional positions which can be identified as sectors within a given sentence. The fillers of these positions are then examined to determine their form. The analysis is always reductive in that it starts at the sentence layer and works down to the word layer: a construction occurring as a functional unit on a given layer is also analyzable as consisting of a string of potential positions for different kinds of functional units on a lower layer, and so on down to the word layer. Finally, on the word layer, each word is classified according to the word class to which it belongs. In addition to position, substitution, the shiftability test, and structural signals such as the presence of includers and prepositions in introducer positions in constructions are used as tools for isolating and identifying units filling one or another sector.

According to Allen "sectors can generally be distinguished from other positions by the fact that no single sector serves as the position for a modifier of any other single sector, and no single sector serves as the position for an 'introducer' of any construction other than the whole sentence."[9] Positions on lower layers are called slots, as in orthodox tagmemic analysis. Allen bases his syntactic analysis upon the sectors and the constructional types within them. The deep structure of complex constructional types (e.g., embedding, recursiveness, the presence of more than one predicate, etc.) can be classified by the repeated application of sector analysis showing the hierarchical relationship of those within the whole sentence structure.

Allen categorizes construction types that include verb forms chiefly on the basis of their having or not having a time-orientation element. The traditional terms "clause" and "predicate" are paralleled by the terms "clausid"[10] and "predicatid" respectively, the latter referring to construction types that lack time-orientation. The traditional term "phrase" is reserved for prepositional phrases alone; noun phrases and verb phrases are referred to as "noun clusters" and "verb clusters."[11] Each of the constructional types thus defined has been assigned a pair of symbols-- brackets, braces, etc. -- to further clarify the syntactic analysis.

Applications of Sector Analysis

The sector analysis model has been found to be applicable to the analysis of prose style, that is, to analysis beyond the sentence layer.[12] Like other new developments in linguistics, it has been put to pedagogical uses in the teaching of English structure to native speakers of English, and a number of studies have supported its effectiveness for improving students' writing on different grade levels.[13] Finally, it has been used for the analysis of Arabic, of Japanese, of Javanese, of Indonesian, and of Vietnamese (in two studies). It is currently being used for the contrastive analysis of Hausa and English.

Five of the studies referred to here are reviewed below.[13a]

Contrastive Studies Using Sector Analysis

Arabic. Yehia Ali El-Ezabi's "A Sector Analysis of Modern Written Arabic With Implications for Teaching English to Arab Students"[14] seeks "to identify the parts which constitute the sentence in written Arabic, and to describe the different kinds of units which function syntactically in the sentence."[15]

Chapters III, IV, and V of this study show that within the hierarchy of functional positions which constitute the Arabic sentence, four layers at the top are of prime importance in distinguishing a sentence from a non-sentence. These are: the Sentence Layer, the Trunk Layer, the Predicate Cluster Layer, and the Predicate Nucleus Layer. The seven constructions identified are non-included clauses (or sentences), trunks, included clauses, clausids, predicates, predicatids, and clusters. El-Ezabi points out that "with the exception of phrases perhaps, none of these construction types had ever been recognized as such."[16] Most constructions are classified as either nominal, adjectival, or adverbial units on the basis of their position. Among other findings are the two classes of substitutes, primary and secondary, which according to El-Ezabi, had not been recognized as such by Arab grammarians or in grammars of Arabic written in English.[17]

El-Ezabi shows that in both English and Arabic, positions in which functional units occur relative to each other prove to be the most important grammatical signals. The F, S, M, V, O, C, D, and E sectors occur in both languages in the same order.[18] Differences in the kinds of constructions which occur in these sectors in Arabic and English are discussed. Although in Arabic, aspect rather than time-orientation (or tense) seems to be the most important feature signalied by the verb, both languages have verb forms which show time-orientation and others which do not. Although the order of units within Arabic and English included clauses is the same, in Arabic the object of the clause is always expressed, as for example, hæda huwa 'al-kætib 'alladi gæbal tahu 'ams (literally, 'this is the writer who you met him yesterday'). The result is that Arab students produce sentences like "This is the writer whom you met him yesterday", "This is the writer whose book you read it", etc.

Javanese. Siswojo Hardjodipuro's "Preliminaries to a Syntactic Analysis of Javanese"[19] identifies six layers in Javanese. These comprise the Sentence Layer, the Clausid Layer, the Trunk Layer, the Predicate Layer, and the Predicatid Layer. Hardjodipuro has also been able to identify a number of construction types "which had not been recognized or had at least been only loosely described, in earlier descriptions of Javanese."[20] He finds most constructions to be classifiable either as nominal, adjectival, or adverbial, a finding reminiscent of El-Ezabi's classification of constructions in Arabic. Nineteen different kinds of substitutes for functional units and three kinds of modifiers (construction-modifiers, modi-modifiers, and simple modifiers) are identified. The study also shows that the Javanese verb system does not have time-reference but shows time-relationship, using the particle wis for 'earlier time,' lagi for 'same-time,' and rep for 'later-time.' According to the writer, this feature of the Javanese verb system had never been identified as such in previous studies.[21]

Unlike El-Ezabi's study, Hardjodipuro's study, even in its summary, does not indicate what the areas of contrast between Javanese and English are, mainly because this study is a preliminary to a more detailed study which would then be used for contrastive purposes.

Indonesian. In his "A Sector Analysis of Modern Written Indonesian,"[22] Muljanto Sumardi also finds position to be an important structural device. This is seen in a comparison of the expressions saja guru 'I am a teacher' and guru saja 'my teacher.' The shiftability of the front sentence adverbial around the lexeme or construction to its right without a change in meaning and without destroying the grammaticality of the sentence is used as a technique for identifying the subject in an Indonesian sentence. (This is also true of the Javanese subject as analyzed by Hardjodipuro, and of the Hausa sentence topic currently being analyzed by the present writer.) Shiftability is also used by all the analysts under review as a technique for identifying the F and E sectors.

Like verbs in Javanese and Hausa, Indonesian verbs also do not express time. That is, they are verbids. Time is expressed by the context and/ or other signals in the sentence: by time adverbials like kamarin 'yesterday,' besok 'tomorrow,' etc.; by aspectual particles like sedang; by time relationship particles like akan; or by a combination of such items, as in Ali sedang MAKAN nasi sekarang (literally: 'Ali aspectual particle eat rice now' – translated in idiomatic English as 'Ali is eating rice now'). As in the languages mentioned above, the Indonesian verbid determines the kinds of units that may or may not follow it in the predicatid which it introduces.

Of particular interest in Sumardi's study are the use of reduplication for pluralization in Indonesian,[23] and the use of counter nouns (lexemes interposed between cardinal numerals and nouns) for counting specific classes of nouns. Some of these include orang 'human being' (for counting humans), chor 'tail' (for counting animals), buah 'fruit' (for counting fruit), etc.
Although this study is not a true contrastive analysis of English and Indonesian but one which the writer hopes will some day serve as the basis for such a contrastive study, every chapter shows some differences between the two languages in terms of structural devices used for identifying the various sectors and their fillers. The differences between English and Indonesian with respect to their verb systems and the expression of time-relationship and time-reference are particularly evident. They certainly call for the preparation of special teaching materials for the Indonesian student learning the English verb system.

Vietnamese. Da'o Thi Ho 'i's "Representation of Time and Time-Relationship in English and in Vietnamese"[24] is directed at (1) teachers of English to Vietnamese students, (2) writers of English textbooks for Vietnamese students, and (3) advanced Vietnamese students of English. Allen's Verb System of Present-Day American English is used as the model for the description of the Vietnamese verb system; using his analysis, Ho'i contrasts the English verb system with the Vietnamese verb system.

Ho'i shows that Vietnamese has a one-time verb system, with the time identified by the context and/or by time expressions. While all English sentences contain predicates, Vietnamese sentences contain only predicatids, that is, predicates lacking time-orientation. While English, for example, employs had, have or *has*, and *will have* to show earlier time time-relationship to a past time, present time, and future time respectively, the single Vietnamese auxiliary *đã* is used to express earlier time time-relationship with respect to any kind of time, past, present or future.[25] English uses *did* for an identified time in the past and a verb cluster introduced by *have* or *has* for an unidentified time. Vietnamese uses *đã* in both cases, regardless of whether the time referred to has been identified or not. The auxiliaries used for showing later time time relationship are *sẽ*, *sắp*, and *mó'i*.

Ho'i notes that the differences between the verb systems of English and Vietnamese are the cause of many of the difficulties that Vietnamese students meet in learning English. These difficulties include the problems of inflected verb forms in English, of the "tie" between time-expressions and verb forms, the proper selection of expanded versus non-expanded forms in English, and of agreement between the present verb or verb-cluster and its English subject. Finally, there are such problems as the word-order in questions, the contracted forms of the auxiliaries, the pronunciation of past verb forms, and the irregular verbs in English. (Ho'i does not discuss irregular verbs.)

The fifth study to be discussed here is by far the most comprehensive of all, combining, as it does, a detailed description of Vietnamese sentence structure with much useful discussion of areas of contrast with English sentence structure. The chief emphasis in Du'òng Bình's study, "A Tagmemic Comparison of the Structure of English and Vietnamese Sentences,"[26] is on the positions in which functional units occur on the different grammatical layers of English and Vietnamese.[27] For example, the class to which a lexeme belongs in each of the two languages is identified by the position in which the lexeme occurs in higher layer constructions or units, i.e., its functional word class is determined by its occurrence before or after other kinds of words or units on a higher layer.[28]

Both English and Vietnamese use listable lexemes as grammatical devices. Vietnamese, however, uses "particles" more than any other class of lexemes as grammatical signals. English, on the other hand, also uses inflections, which Vietnamese lacks.

Following Allen's method of classification, Bình finds eleven "basic" sentence patterns in Vietnamese as against the fourteen basic sentence patterns which Allen finds for English on the basis of the units that may occur in the sectors in the predicate nucleus, i.e., in the V + C + O + B + C sectors. Ten of the Vietnamese sentence patterns are similar to those identified by Allen for English.[29]

The sectors S, V, B, C, F, and E occur in both English and Vietnamese in approximately the same order. However, not all the units or constructions that fill such sectors are the same in both languages. For example, although clusters occur in the F and E sectors of English and Vietnamese, Vietnamese has only adverbial noun clusters and adverbial adverb clusters. Although adverbial predicatids may occur in both the F and E sectors in English and Vietnamese, in Vietnamese they occur only in the F position. In addition, when the person or thing referred to occurs at the end of the sentence, English uses the "fillers" it and there to fill the subject position. Vietnamese has no such "fillers." The subject position may be left vacant when no person or thing is being referred to; it may also be left vacant when the subject has already been mentioned in a clausid in the front adverbial position. Clauses and phrases do not occur in the subject position in Vietnamese as they do in English.[30]

Like Ho'i, Bình shows that whereas every English verb has six forms, every Vietnamese verbid has only one. In addition, Binh notes that in English two or more auxiliaries may co-occur in a verb or verbid cluster, with the next preceding auxiliary or X word determining the form of the auxiliary or nucleus verbid. A nucleus cluster in Vietnamese, however, consists only of one auxiliary and verbid, and both have invariable forms.[31]

While the negator *not* (or its contraction *n't*) cannot occur alone in English but must be "carried" by an X word, the negators in Vietnamese can occur alone in the "Neg." position (i.e., "Negator" position), which is distinct from the "TR" position (i.e., the "Time-Relationship" particle position). Unlike English, Vietnamese has not one but many negators, two of those most commonly used being *chu'a* and *khong*. Although the English negator *not* (or *n't*) has no effect upon the status of a sentence or question or statement, the negators in Vietnamese do, at least in speech. Again, where X words are used in emphatic sentences in English to carry the emphatic stress (which cannot occur separate from one of the X words), emphasis in Vietnamese is signalled by the use of the emphatic lexeme *có*, which can occur alone. In addition, Vietnamese has an "Em." position to which any unit that needs to be emphasized can be shifted.[32]

Pre- and post-nucleus modifiers and their nucleus in a noun cluster in English comprise a set of nine possible slots. In Vietnamese, they comprise a set of eleven. While a determiner in English occurs only in the first position in a noun cluster, two determiners may co-occur in a Vietnamese noun cluster, one as a predeterminer in the third slot and the second in the last slot after the nucleus, i.e., in the eleventh slot. In English, phrases, predicatids, and clauses occur in that order in a noun cluster. Similarly, in Vietnamese, phrases, predicatids, and clausids occur in the same order.[33]

Binh hopes that from the results of her study, a teacher may be able to predict areas of English structure which will cause the most difficulty for Vietnamese students. This should help him organize his materials so that he can start with the least troublesome patterns and go to the more troublesome ones. Structural patterns which are similar in both languages, she says, should be introduced at an earlier stage since they will require little relearning.[34]

In conclusion, one can make two observations regarding the use of sector analysis both as a descriptive model and as a model for contrastive studies. From an analytical point of view, a possible danger in studies of this nature, one against which Allen himself warns his students, is that of adopting categories from one language and of applying them to other languages without modification, much as the traditionalists did with their "eight parts of speech." That the writer of each of the studies reviewed here was aware of this danger is shown by the stamp of individuality in the description of each language. It is reassuring to remember that the analysts themselves are native speakers of the languages they have analyzed. Yet some universals are evident. All the analysts recognize the significance of position as a structural signal, and make use of the techniques of shiftability and of substitution; all identify both "listable" and "non-listable" lexeme classes, and the presence of "introducers" as a means of identifying constructions and sectors. That there is a hierarchy of structure in every language is also evident in these studies. Ambiguity, an important concept in structural and semantic analysis, is also found in all of these languages. Sector analysis has enabled each analyst to handle this phenomenon competently, which is an important criterion of descriptive adequacy.

With respect to the use of sector analysis as a model for contrastive study, a rudimentary knowledge of sector analysis should enable teachers to recognize the sectors of English and to contrast them with those of their own languages. This suggests that each of the above studies is of practical use to the teacher of English as a Second Language, as it is of interest to the theoretical linguist.

NOTES

1. Robert L. Allen, *English Grammars and English Grammar* (New York: The Macmillan Company, 1964).

2. Allen, *The Verb System of Present-Day American English* (The Hague: Mouton and Company, 1966).

3. Allen et al., *Exploration 1 and 2: A Linguistic Approach to Writing* (New York: Noble and Noble, 1966).

4. Allen et al., *Discovery 1 and 2: A Linguistic Approach to Writing* (New York: Noble and Noble, 1967).

5. Allen, "Sector Analysis: From Sentence to Morpheme in English," *Monograph Series on Languages and Linguistics*, No. 20, ed. E. L. Blansitt (Washington, D.C.: The Georgetown University Press, 1967), pp. 159-174.

6. Allen, *English Grammars and English Grammar*, p. 23.

7. Allen, *The Verb System of Present-Day American English*, p. 98.

8. Ibid., p. 105.

9. Ibid.

10. A distinction is further made between "included" and "non-included" clauses or clausids, i.e., between clauses or clausids introduced by "includers" like that, after, because, etc., and those not so introduced, as well as between clausids and "contracted" or "collapsed" clausids.

11. Allen, The Verb System of Present-Day American English, pp. 113-114.

12. See, for example, Thomas E. Wenstrand, "An Analysis of Style: The Application of Sector Analysis to Examples of American Prose Fiction" (unpublished doctoral dissertation, Teachers College, Columbia University, 1967), and also Jean McConochie, "Simplicity and Complexity in Scientific Writing: A Computer Study of Engineering Textbooks" (unpublished doctoral dissertation, Teachers College, Columbia University, 1969).

13. See, for example, Joseph A. Bosco, "Sector Analysis: An Approach to Teaching Fourth Grade Students Certain Aspects of English Sentence Structure" (unpublished doctoral dissertation, Teachers College, Columbia University, 1967); Arthur R. Brieger, "An Application of Sector Analysis to the Teaching of English in the Intermediate Grades" (unpublished doctoral dissertation, Teachers College, Columbia University, 1966): and Ruthellen Crews, "A Study in the Use of Sector Analysis as an Approach to Teaching Fifth-Grade Students Certain Aspects of English Sentence Structure" (unpublished doctoral dissertation, Teachers College, Columbia University, 1966).

13a. This review has two shortcomings: (1) The studies done so far have been more linguistic analyses than detailed contrastive studies. This may be excused, since foreign students who come to study the Teaching of English as a Second Language ("TESL") here discover the importance of contrastive analysis in TESL and decide to apply it in their own language, only to discover that no adequate linguistic analyses of their languages are available for them to use as the basis for such contrastive studies. It has, therefore, been necessary for them to strive to attain this first prerequisite before embarking on more straight-forward contrastive analysis. (2) A more apparent shortcoming, one that concerns this review directly, is the inadequacy of space here to discuss each of these five studies in full. Each study runs into hundreds of pages and a two- or three-page review of each can certainly not do them justice.

14. Yehia Ali El-Ezabi, "A Sector Analysis of Modern Written Arabic With Implications for Teaching English to Arab Students" (unpublished doctoral dissertation, Teachers College, Columbia University, 1967). El-Ezabi also discusses this study in his paper "The Sectors of Written Arabic" in the Georgetown Monograph Series on Languages and Linguistics, No. 20, ed. E. L. Blansitt (Washington, D.C.: The Georgetown University Press, 1967), pp. 175-180.

15. El-Ezabi, "A Sector Analysis of Modern Written Arabic," p. 10.

16. Ibid., p. 52.

17. Ibid., p. 159.

18. The sectors which these symbols stand for are given as follows: F: Sector for the Front Sentence Adverbial; S: Sector for the Subject of the Sentence; M: Sector for Middle Adverbial; V: Sector for Verbid Cluster; O: Sector for the Object of the Sentence: C: Sector for Object and Sentence Complements; D: Sector for Droppable Predicated Nucleus Modifier; E: Sector for End Sentence Adverbial.

19. Siswojo Hardjodipuro, "Preliminaries to a Syntactic Analysis of Javanese" (unpublished doctoral dissertation, Teachers College, Columbia University, 1970).

20. Ibid., p. 115.

21. Ibid., p. 117.

22. Muljanto Sumardi, "A Sector Analysis of Modern Indonesian" (unpublished doctoral dissertation, Teachers College, Columbia University, 1970).

23. Reduplication is also found in Hausa, but there it is used for more varied purposes.

24. Da'o Thi Ho'i, "Representation of Time and Time-Relationship in English and in Vietnamese" (unpublished doctoral dissertation, Teachers College, Columbia University, 1965).

25. Ibid., pp. 118-127.

26. Du'ong Thanh Bình, "A Tagmemic Comparison of the Structure of English and Vietnamese Sentences" (unpublished doctoral dissertation, Teachers College, Columbia University, 1965). While Ho'i's study deals exclusively with the verb system of Vietnamese, Bình's deals with all of the sentence structure.

27. Ibid., p. 313.

28. Ibid., p. 311.

29. Ibid., pp. 308-309.

30. Ibid., pp. 195-196.

31. Ibid., pp. 219-220.

32. Ibid., pp. 235-236.

33. Ibid., p. 186.

34. Ibid., p. 313.

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A COMPROMISE SYSTEM

A Link between Linguistic Borrowing and Foreign Language Learning[1]

1. As I happened to be working at the same time on the English Element in European Languages[2] and on the Contrastive Analysis of Serbo-Croatian and English combined with error analysis[3] a comparison of the two processes, the process of linguistic borrowing and the process of learning a foreign language, suggested itself, and I tried to draw a parallel between them.

1.1. Both linguistic processes, learning (or teaching) a foreign language and linguistic borrowing, represent the contact of two systems, the system of the target language (L_T) or the giving language (L_G) and the system of the mother tongue - the source language (L_S) or the receiving language (L_R). Whenever there is contact between two languages, the result of language contact is interference.

1.2. So in both learning a foreign language and borrowing from a foreign language we analyse interference, the instances of deviations from the norms of either language. In learning a foreign language the process starts from the system of the mother tongue, the source language (L_S), and the learner tries to reach the new system of the foreign language, the target language (L_T):

(a) $L_S \longrightarrow L_T$

1.3. In the process of borrowing we start from the system of the giving language (L_G), which is a foreign language, and in the course of adaptation and integration we reach the system of the receiving language (L_R), which is the mother tongue:

(b) $L_G \rightarrow L_R$

If we establish the relations

$$L_S = L_R$$

$$L_T = L_G$$

we get a new formula:

(c)
$$\begin{tikzcd} L_S \arrow[d] \arrow[r, phantom, "="] & L_R \\ L_T \arrow[r, phantom, "="] & L_G \arrow[u] \end{tikzcd}$$

which means that the two processes go in opposite directions. In spite of this the parallel holds true.

2. In the analysis of the English element in European languages, following the basic principles of linguistic borrowing, we further developed the already mentioned process (b) $L_G \rightarrow L_R$. According to the degree of adaptation, assimilation, and integration, three main groups of words emerged: (1) Foreign words (FW) which remain unassimilated; (2) Foreign loans (FL) the adaptation and assimilation of which have started (but have not yet finished); (3) Loan words (LW) which have been completely adapted, assimilated and integrated.[4] This means that the process of borrowing goes like this:

$$FW \rightarrow FL \rightarrow LW$$

2.1. In terms of the contact between two languages, or two systems, this process can be represented by the formula:

(d) $L_G \rightarrow L_X \rightarrow L_R$

In the formula L_G corresponds to FW, L_X to FL and L_R to LW. If we insert these new relations we get a new formula which represents the whole process of linguistic borrowing:

$$\text{(e)} \quad (L_G = \text{FW}) \rightarrow (L_X = \text{FL}) \rightarrow (L_R = \text{LW})$$

3. Before we start the analysis of language contact between two languages we must know L_G, i.e. we must describe its system. The same applies to L_R. At the moment when we know L_G and L_R we do not yet know L_X. By studying the process of adaptation and assimilation of the elements of L_G and their integration into L_R we develop a new intermediate system which represents a compromise between L_G and L_R. All the features of this system are called phonetic compromise[5] (Sapir's term) or compromise replicas[6] (Haugen's term).

3.1. The elements of phonetic compromise and compromise replicas form a new system (L_X) which is neither L_G nor L_R. However, some elements of L_G and some elements of L_R can be found in L_X. Apart from these, the L_X system contains a number of new transition elements belonging neither to L_G nor L_R. As L_X represents something between L_G and L_R (and not L_G or L_R) it is a transitory system which I call a compromise system: L_C. Its main characteristic is that it is not as full as L_G or L_R. It is often fragmentary and characterized by elements which disappear after some time.

3.2. L_C can be described on all levels: phonological, morphological, syntactic, semantic, lexical. If we want ~~to de~~scribe the phonological system of L_C we should concentrate, as in other cases, on three features: 1) the inventory of phonemes in which we can trace some phonemes of L_G; 2) the distribution of phonemes which can reflect some phonemic combinations transferred from L_G into L_C; 3) stress which can preserve some characteristics of L_G especially in position. On other levels the fragmentary, transitory or compromise nature of the morphological, the syntactic, etc. systems is evident.

4. The process of foreign language learning, as we have already said, runs in the opposite direction but keeps the same form: the learner begins with his knowledge of the mother tongue, the source language (L_S), and goes in the direction of the foreign language, the target language (L_T). Its beginning and its end can be easily determined:

$$L_S \rightarrow L_T$$

4.1. What happens between L_S and L_T and how a learner beginning from L_S reaches L_T is still unknown and should be further investigated. However, we have learned from Dr. William Nemser[7] that what the learner in the process of learning from L_S to L_T goes through is a set of approximative systems ($L_{a_{1...n}}$) which Dr. Nemser calls learner systems. The above formula $L_S \rightarrow L_T$ can be extended into:

$$\text{(f)} \quad L_S \rightarrow L_{a_{1...n}} \rightarrow L_T$$

4.2. Although, as Prof. Slama-Cazacu says,[8] we do not know exactly what approximative systems are and we are not sure that they exist in reality (a problem which will have to be further investigated both on psycholinguistic and pedagogical levels), we have accepted Dr. Nemser's theory and are trying now to see how it can be applied to the comparison of the process of learning and borrowing.

5. In parallel with the contrastive analysis of Serbo-Croatian and English in 1966 we started our work on error analysis. The frame title of

the research was Syntactic and morphological errors in the speech of learners of English in the Serbo-Croatian-speaking area. It resulted in three MA theses:[9]

a) Errors in the morphology and syntax of the parts of speech (excluding the verb) in the English of learners from the Serbo-Croatian-speaking area;[10]

b) Errors in the morphology and syntax of the verb in the speech of learners of English in the Serbo-Croatian-speaking area;[11]

c) Errors in the syntax of the sentence in the speech of learners of English in the Serbo-Croatian-speaking area.[12]

5.1. The basic problem dealt with in these theses was errors in the use of the English parts of speech and errors in the use of main parts of the sentence, i.e. deviations from correct English sentence structure, deviations from the rules for producing grammatical sentences and deviations from the rules in some parts of speech.

5.2. The authors' investigations have shown several causes of deviations:[13] firstly, one of the main causes of morphological and syntactic errors is interference from the native language; secondly, a great number of morphological errors are due to incorrect analogies which a learner tries to establish within the foreign language; thirdly, a deviation from the rules can be caused by the fact that the learner knows or is learning another foreign language; fourthly, further cause of deviations at all levels is incomplete mastery of the foreign language system due to the teaching methods used; fifthly, an interesting type of deviation which we want to use in this discussion is what we describe as "different from the native language", but not yet the target language. This occurs in the so-called "transitional phase" in which the learner has given up his native language system as a model but has not yet completely mastered the system of the target language. In this phase the stimulus "new" means to him "different from the native language".

6. In this stage of the learning process the learner is somewhere half-way between the native language and the target language, using a system which is no longer the system of his mother tongue, but not yet the system of the target language. This can be considered, as Dr. W. Nemser suggests, the learner's system, or as I would like to call it a compromise system (to draw the parallel with the process of linguistic borrowing).

6.1. In a discussion[14] with the supporters of approximative systems I asked them how many approximative systems we can establish. For obvious reasons the answer was rather vague as we still know very little about these systems. I offer a practical solution in teaching a foreign language, which is again comparable with the process of linguistic borrowing.

6.2. In the same way in which we can establish the secondary compromise system in linguistic borrowing on the basis of the analysis of the second phase (the transitory phase between the receiving language - the mother tongue and the giving language - the foreign language, which is characterized by foreign loans) I believe we can establish a general transitory system which will be a summary of the results we obtained through error analysis. This artificial system would have some practical purpose. It will first represent the transition stage between L_S and L_T, a transition system which could show how a learner passes from L_S to L_T. The practical value of this system will be that the instructor and the text-book writer would have some new information concerning which elements in the process of learning they should concentrate on in order to make the passage from L_S to L_T the quickest and easiest *possible*.

6.3. How can such a new system be constructed and made available to teachers of foreign languages? On the basis of the results obtained by error analysis at all levels (phonological, morphological, syntactic, etc.) and the hierarchical system of errors, we are going to build up a transitory system of errors typical of Serbo-Croatian learners of English.[15] Such a system, as artificial as it may look, helps us, the teachers of English in the Serbo-Croatian-speaking area, in developing our teaching strategy and in writing textbooks and grammars of English based on Serbo-Croatian.

6.4. Now our parallel between linguistic borrowing and the learning process is complete. The binary formula representing the learning process

$$L_S \rightarrow L_T$$

is extended and the transitions stage established by means of a new system consisting of errors made in passing from the system of the mother tongue into the system of the foreign language. This new system corresponds to the compromise system (L_C) in the process of linguistic borrowing and we get a new formula which corresponds to the one already mentioned ($L_G \rightarrow L_C \rightarrow L_R$):

$$\text{(g)} \quad L_S \rightarrow L_C \rightarrow L_T$$

where L_C corresponds in a way to Dr. Nemser's L_a or $L_{a_{1...n}}$, or the general approximative system.

7. The above process can be illustrated by an example from our practical work. For the sake of experiment we used the type of exercise "Retell the story". The experiment was carried out at three levels: with beginners, with intermediate pupils, and with advanced learners.

7.1. In the first, beginning stage, the learners read the story, understood it, and kept the content in their minds. When later they were asked to retell the story all they were sure about was the content of the story. When retelling it in English the learners used the structures that corresponded to Serbo-Croatian patterns and we had the impression that they were translating Serbo-Croatian patterns into English by replacing every Serbo-Croatian word by an English one. This feature can be called "Serbo-Croatian filled with English words".

7.2. In the second, intermediate stage, after the learners had been told about the above error they did their best to avoid using "Serbo-Croatian patterns filled with English words". We then registered a mixture of Serbo-Croatian and English patterns and we had the impression that the learners had made some progress as they used fewer Serbo-Croatian patterns. A more careful examination of errors made at this stage confirmed one of the causes of deviations from the rules that had been shown in the error analysis in three MA theses: the errors found at this stage could not be classified as a result of interference from the native language or of any other cause mentioned above[16] except that defined as "different from the native language".

7.3. We believe that at this stage the learners who were trying to avoid Serbo-Croatian patterns as much as possible, were under the pressure of "new patterns", and lacking English structures used some patterns which were neither Serbo-Croatian nor English. They must be what we call a compromise. But a compromise of what? Of patterns the learner was trying to acquire from English, which were too different from anything the learner knew in his native language, and causing him to stop somewhere between L_S and L_T. This system (new enough not to be identified with the Serbo-Croatian system), the learner's own creation, represented a compromise system. It satisfied the demand not to use Serbo-Croatian patterns filled with English words but to use "new" patterns where "new" stood for different from Serbo-Croatian. The learner's knowledge of English was not wide enough to retell the story (and not to repeat it after he had learned it by heart) with a variety of English structures.

7.4. Further investigation of psycholinguistics will probably tell us what kind of process this is and how and why the learner leaves the second stage to reach the third, advanced stage, where the majority of patterns used are English. Even here we can still find a few (but not too many) Serbo-Croatian patterns filled with English words, but we do not find any of the "new", non-Serbo-Croatian and non-English "compromise patterns" of the second stage.

8. If the compromise system, or the general approximative system which in itself comprises stages according to the hierarchy of errors, serves its purpose in the teaching process in giving an idea of errors made by the speakers of one language when learning another (target) language and helps the teacher and the textbook writer in their work, then I believe that the immediate aim of every project based on contrastive analysis and error analysis such as ours in Zagreb should be not only a new contrastive grammar

of the target language based on the learners' mother tongue, but also a compromise system, worked out for any two languages, the learner's mother tongue and the target language, on the basis of error analysis.

NOTES

1. This paper was read at the GAL Conference 1971 in Stuttgart.

2. Rudolf Filipović: "The English Element in the Main European Languages", (Research in Progress), Studia Romanica et Anglica Zagrabiensia, 21-22/1966, 103-112.

" " : "Some Problems in Studying the English Element in the Main European Languages" (To appear in the Proceedings of the Triennial Conference of IAUPE held in Istanbul, Sept. 1-7, 1971).

3. Cf. Rudolf Filipović (ed.), "The Yugoslav Serbo-Croatian - English Contrastive Project". Reports 1, 2, 3, 4, 5; Studies 1, 2, 3, 4, 5; Pedagogical Materials 1.

4. Rudolf Filipović. The Phonemic Analysis of English Loan-Words in Croatian, Zagreb 1960, pp. 17-18.

5. Rudolf Filipović: "The Phonetic Compromise". SRAZ, Zagreb 1958, No. 5, pp. 77-88.

6. Rudolf Filipović: "Compromise Replica and Phonemic Importation". To Honor Roman Jakobson. Mouton, 1967, pp. 662-666.

7. William Nemser: "Approximative Systems of Foreign Language Learners", in R. Filipović (ed.), The Yugoslav Serbo-Croatian - English Contrastive Project. Studies 1, Zagreb 1969, pp. 3-12, and IRAL, IX, 2 (1971), pp. 115-123.

8. In Rudolf Filipović (ed.), Zagreb Conference on English Contrastive Projects. Zagreb 1971, p. 217.

9. Long summaries of these theses have been printed in R. Filipović (ed.), The Yugoslav Serbo-Croatian - English Contrastive Project, Pedagogical Materials 1, Zagreb 1971, 7-80.

10. Vera Andrassy: "Jezična odstupanja u morfologiji i sintaksi vrsta riječi (osim glagola) u govoru učenika engleskog jezika na hrvatskosrpskom govornom području".

11. Jasna Bilinić: "Jezična odstupanja u morfologiji i sintaksi glagola u govoru učenika engleskog jezika na hrvatskosrpskom govornom području".

12. Stanka Kranjčević: "Jezična odstupanja u sintaksi rečenice u govoru učenika engleskog jezika na hrvatskosrpskom govornom području".

13. R. Filipović: "Contrastive Analysis and Error Analysis in Pedagogical Materials". The Yugoslav Serbo-Croatian - English Contrastive Project. *Pedagogical Materials* 1, Zagreb 1971, pp. 1-6.

14. At the Zagreb Conference on English Contrastive Projects (7-9 Dec. 1970).

15. This will be a synthesis based on my analysis of errors in English pronunciation in the Serbo-Croatian-speaking area and the results of three MA theses quoted above (notes 10, 11, 12).

16. See pp. 23-24

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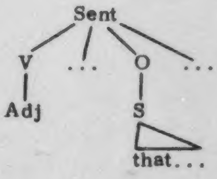
CASE FRAMES AND TRANSFORMATIONS FOR CLAUSE-EXPANDED ADJECTIVES

0. This paper will consider predicative adjectives expanded with that-clauses and examine their case frames (in both unexpanded and expanded uses) and transformational potentials. The following examples are illustrative:

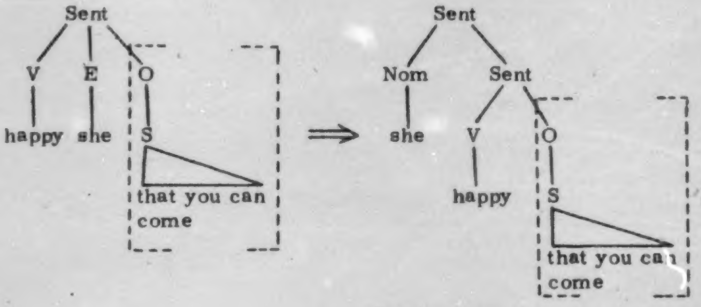
(1) She is happy that you can come.
(2) She is aware that she can't do this alone.
(3) It is true that they work very hard for their living.
(4) It is obvious to me that he is a fool.
(5) I'm sure that you can do it.
(6) He was sad that everybody misunderstood him.
(7) It was silly that he behaved like this.
(8) It is important that you should trust him.
(9) I'm anxious that he should come soon.

0.1. The case frames for all these adjectives include Objects.[1] This fact can be shown – retaining only the relevant part of the diagram – in the following way:



However, the transformational changes that these adjectives can undergo vary, and indicate that the syntactic bond between the predicate and the object clause (and, therefore, also the semantic interpretation) is not the same in all instances. Classes of adjectives can be set up in terms of different transformations that they accept in this situation.

1. The first class of adjectives expandable with that-clauses is represented by happy. The case frame for such adjectives includes Experiencer and Object, of which the former is obligatory and the latter optional. Regardless of whether Object is present in the sentence or not, Experiencer becomes the Nominative and gets promoted into the subject position (because Experiencer precedes Object in the hierarchy of cases). This is done by moving it to the left of the verb and Chomsky-adjoining it to the rest of the sentence:



She is happy that you can come.

The unexpanded adjective denotes an emotion experienced by the subject, without specifying the cause. When the object is present, the cause of the emotion is expressed and the following transformations are possible:

(10) She is happy because you can come.
(11) The reason why she is happy is that you can come.
(12) The cause of her happiness is the fact that you can come.
(13) What makes her happy is (the fact) that you can come.

The subject of the that-clause may be the same as that of the main clause or different from it:

(14) I'm happy that I am with you today.
(15) I'm happy that this is so.
(16) I'm happy that John is better already.

When the subjects of the two clauses are identical, the subject of the dependent clause can be deleted and the clause itself is transformed into an infinitival phrase:

(17) I'm happy to be with you today.

This transformation is, for most speakers of English, inadmissible when the two subjects are different:

(18) *I'm happy for this to be so.
(19) *I'm happy for John to be better already.

The prepositional expression of the object of the emotion denoted by the adjective is equally strained, or impossible, when the clause is retained untransformed:

(20) *I'm happy for this that this is so.
(21) ? *I'm happy for John that he is better already.
(accepted by those speakers who also accept the sentence: I'm happy *for* John.)

Since the clause remains in the object position under all transformations — because of the obligatory presence of Experiencer with adjectives of this class — the subject raising rule cannot apply to it, nor can the subject copying rule be applied either:

(22) *That I am with you today is happy.
(23) *It is happy that I'm with you today.
(24) *It is happy for me that I'm with you today.
(25) *It is happy for me to be with you today.

Adjectives of the happy-class accept as subjects only those forms which can be derived from Experiencer: these include Animate (specifically, Human) subjects capable of experiencing the emotion expressed by the adjective.[2]

2. There is another class of adjectives in English which appears to possess the same range of syntactic potentials as the happy-class, but which, in fact, is different in that Object is an obligatory part of its case frame:

(26) She's aware that she can't do this alone.

Adjectives of this class are like those of the happy-class in that they, too, have an obligatory Experiencer in their case frame which is promoted into the surface subject. Also, as with happy, the subject of the that-clause may be the same as, or different from, the subject of the main clause. Another point of similarity is that the transformations rejected by happy are also rejected by aware. However, the two classes differ in two important ways: First, adjectives of the aware-class do not transform their object clauses into infinitival phrases (under conditions of subject identity in the main and the dependent clauses); instead, the transformation "of + gerund" takes place in such cases:

(27) She's aware that she is smart enough for him.
⟹ *She's aware to be smart enough for him.
⟹ She's aware of her being smart enough for him.

Notice that under this transformation the subject of the dependent clause is not deleted, which explains why the transformation does not require the referential identity of the subjects of the two clauses:

(28) She's aware that he is a rich man.
⟹ She's aware of his being a rich man.

Second, and more importantly, the transformations exemplified in sentences (10) through (13) above for adjectives of the happy-class are not possible with adjectives of the aware-class:

(29) *She's aware because he is a rich man.

(30) *The reason why she is aware is that he is a rich man.

(31) *The cause of her awareness is the fact that he is a rich man.

(32) *What makes her aware is (the fact) that he is a rich man.

This points to an important semantic difference between the two classes of clause-expanded predicative adjectives: while the clause-expanded and the unexpanded (sentence-final) happy can be said to be the same lexical entry, the unexpanded predicative aware represents a different lexical entry from the adjective aware which obligatorily takes a prepositional or clausal object. Thus, to say that "someone is aware that something is true" is not the same as saying that "someone is aware", and the lexicon would have to have two entries under aware as against only one entry under happy. This can be shown even more clearly with another adjective from the aware-class, namely afraid:

(33) I'm afraid.

(34) I'm afraid that I can't help you.

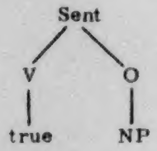
Here the clause-expanded afraid, unlike the sentence-final afraid, cannot be semantically interpreted as "experiencing fear, suffering from fear", nor can the object clause be transformed into an "of + gerund" construction:

(35) I'm afraid (that) I can't help you.
$\nRightarrow$ I'm afraid of my not being able to help you.

Afraid$_1$ (experiencing fear), but not afraid$_2$ (obligatorily followed by a that-clause), accepts the infinitive as its object:

(36) I'm afraid to help you.
($\nLeftarrow$ I'm afraid /that/ I help you.)

3. The third class of clause-expanded adjectives is represented by the adjective true. The case frame for this class includes only Object, which can be realized either as a noun phrase or as a clause:


Sent
V
O
true
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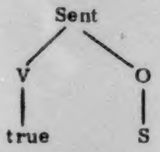
Sent
V
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true
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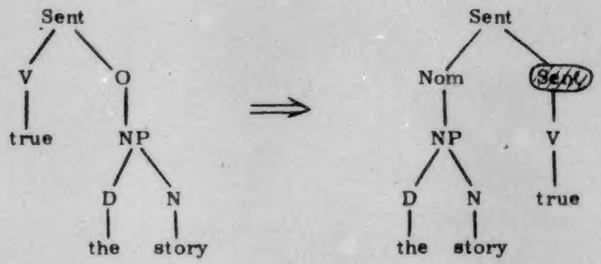
In both situations, Object becomes the Nominative and gets promoted into the surface subject position (Chomsky-adjoined to the rest of the sentence):


Sent
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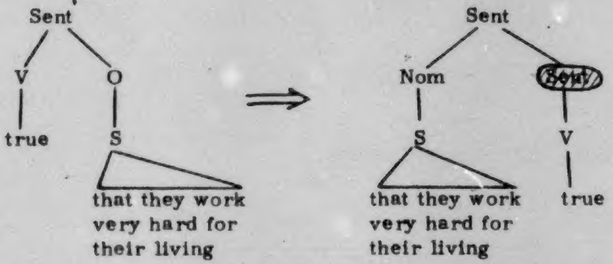

Sent
V
O
true
S
that they work very hard for their living
Sent
Nom
Sent
S
V
that they work very hard for their living
true

Thus we get sentences (37) and (38):

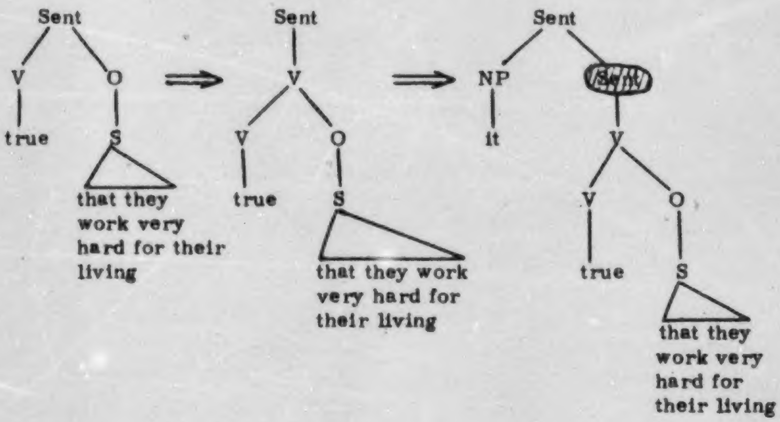
(37) The story is true.

(38) That they work very hard for their living is true.

And it is sentence (38) that provides the pattern in which adjectives of the true-class are expanded with that-clauses. This is done by moving the subject that-clause into the position following the predicative adjective and filling the empty slot with it:

(39) It is true that they work very hard for their living.

An alternative explanation is also possible whereby Object does not get promoted into the surface subject but is rather Chomsky-adjoined to be verb, in which case -- since nothing is left in the original sentence "material" to serve as a subject and since English, unlike for instance Serbo-Croatian, does not accept subject-less sentences -- it is obligatorily inserted into the subject position:


Sent
V
O
true
S
that they work very hard for their living
Sent
V
V
O
true
S
that they work very hard for their living
Sent
NP
it
V
V
O
true
S
that they work very hard for their living

In the type of sentence illustrated in (39), impersonal (empty) it is the only kind of subject allowed:

(40) *They are true that they work very hard for their living.

When a noun appears in this position, the that-clause actually belongs to this particular noun as its modifier, even though the predicate might intervene between them:

(41) The claim is true that they work very hard for their living. ⟸ The claim that they work very hard for their living is true.

Transformations that have proved possible with adjectives like happy do not operate with adjectives like true:

(42) *It is true because...

(43) *The reason why it is true is that...

(44) *The cause of its truth is that...

(45) *What makes it true is that... (All these sentences are ungrammatical as transformational versions of (39).)

The transposition of the object clause into the front position, while retaining the subject it, is not allowed:

(46) *That they work very hard for their living, it is true.

Finally, unlike in the happy-class, the clause does not transform into an infinitival phrase:

(47) *It is true (of them) to work very hard for their living.

4. Adjectives of the true-class have no Experiencer in their case frames because, semantically, they indicate qualities that are objective, that do not depend on the person experiencing them: something is or is not true -- it cannot be (though it may seem) true to someone.

There is, however, a rather large class (or subclass) of adjectives which behave in every respect like true, but whose case frame includes not only Object, which is obligatory, but also Experiencer, which is optional:

(48) It is obvious to me that he is a fool.

(49) To me it is obvious that he is a fool.

It is interesting to note that Experiencer, when chosen, remains as a prepositional phrase in the surface structure and does not get promoted into the subject position:

(50) *I am obvious that he is a fool.

The semantic explanation of this fact is that Experiencer is subjected to the action of an external force or quality, not one that comes from within himself. Thus, the "obviousness", like "truth", lies not in the person experiencing it but in the object or statement claiming it. It is possible, however, that one person finds obvious something that another does not: hence the possibility of something being "obvious to someone". (This indicates that two types of Experiencer ought to be specified in Case Grammar - one experiencing something from within, and the other experiencing something from without. Their places in the hierarchy of Cases are not the same: the former precedes all the cases except Agent and is promoted into the subject whenever Agent is missing in a particular case frame, while the latter comes further down along the hierarchical ladder, certainly after Object, and does not get promoted into the subject position.)

5. The next class of adjectives includes those which have both Experiencer and Object in their case frames but whose semantic content refers to qualities present inside Experiencer, and Experiencer can therefore become the surface subject:

(51) I'm sure that you can do it.

In this sense, these adjectives are like happy. But the relation between the adjective and the clause which follows it is different:

(52) *I'm sure because you can do it. (The transformations illustrated in sentences (11) - (13) are equally ungrammatical.)

Also, they accept some transformations which adjectives of the happy-class reject:

(53) You can do it, I'm sure. (cf. *You can do it, I'm happy.)

Adjectives like sure appear also in case frames without Experiencer and participate in transformations characteristic of the class represented by true:

(54) It is quite sure that you can do it.

(55) That you can do it is quite sure.

Since the qualities referred to by these adjectives reside inside Experiencer, it gets promoted -- whenever it is present in the sentence -- into the surface subject; consequently, it cannot appear as a prepositional phrase as it does with adjectives like obvious:

(56) *It is quite sure to me that you can do it.

The replacement of the clause by the infinitive in sentences of the type (54) is not allowed:

(57) *It is quite sure of you to be able to do it.

The situation is somewhat more complex when one compares sentences (58) and (59):

(58) He is sure that he has enough money for all his needs. (cf. He is happy that he has enough money for all his needs.)

(59) He is sure to have enough money for all his needs. (cf. He is happy to have enough money for all his needs.)

Obviously, sentence (59) with sure in the predicative position cannot be regarded as a transform of (58) in the same way in which the corresponding sentences with happy can be said to be transformationally related. This can be shown with the following paraphrases of (59), from which it is clear that sure in (59) comes from a separate sentence, with the speaker as the subject:

(60) He will surely have enough money for all his needs. (cf. *He will happily have enough money for all his needs.)

(61) He will — I am sure -- have enough money for all his needs. (cf. *He will -- I am happy -- have enough money for all his needs.)

6. While the relations between Experiencer, Object and adjective with the sure-class were such as to prevent the operation of some transformations typical of happy, with adjectives belonging to the sad-class the relations are the same as with the happy-class but, in addition, they are also such that these adjectives accept the transformations accepted by true. Thus, an adjective like sad belongs to two classes:

(62) He was sad that everybody misunderstood him.

(63) He was sad because everybody misunderstood him.

(64) The reason why he was sad was that everybody misunderstood him.

(65) The cause of his sadness was the fact that everybody misunderstood him.

(66) What made him sad was (the fact) that everybody misunderstood him.

(67) It was sad that everybody misunderstood him.

(68) That everybody misunderstood him was sad.

When Experiencer is part of the case frame, it becomes the subject, and Object (that-clause) follows the adjective. When Experiencer is not chosen, Object gets promoted into the subject position.

However, sad appears also as another lexical entry, whose case frame includes Instrument and whose meaning is not "feeling sadness" but "producing sadness":

(69) The movie is sad.

This sad does not accept Object and, consequently, rejects the clausal expansion:

(70) *The movie is sad that nobody likes it.

7. Another group of adjectives is represented by silly. It belongs with true in the sense that (71), (72) and (73) are all possible:

(71) His behaviour was silly.
(72) That he behaved like this was silly.
(73) It was silly that he behaved like this.

Also, silly resembles true in its rejection of (74):

(74) *He was silly that he behaved like this. (cf. (40) above.)

However, the semantic content of silly, unlike that of true, makes it possible for this adjective to accept Objects with the feature [+ Human]; the syntactic consequence of this fact is that human surface subjects appear with such adjectives:

(75) He was silly. (cf. *He was true.)[3]

With this kind of semantic relationship, the adjective begins to accept certain transformations which it rejects with [- Human] Objects in this case frame:

(76) He was silly to behave like this. (cf. *He was true to behave like this.)
(77) It was silly (of him) to behave like this. (cf. *It was true (of him) to behave like this.)

8. It is noteworthy that silly differs from true in accepting the infinitive as its Object (as shown in (77) above), because this is where important differs from it too:[4]

(78) It is important (for you) to trust him.

Important and *true*, together with silly, accept *that*-clauses as Objects (cf. (39) and (73) above):

(79) It is important that you should trust him.

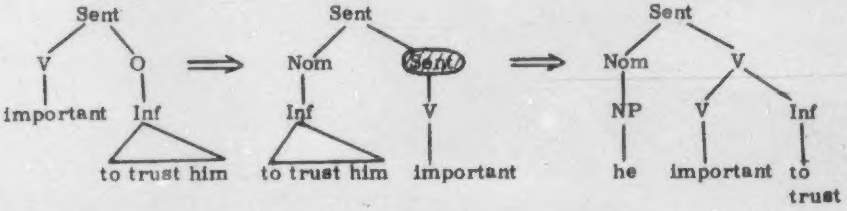
But *important* -- like *true* and unlike *silly* -- rejects Objects with the feature [+ Human] when expanded with an infinitive (clausal expansion is rejected even by *silly*).[5]

(80) *He is important that he trusts her.
(81) *He is important to trust her.

Sentence (82) is only an apparent counterexample, because its human surface subject is derived transformationally from an Object infinitive which is included in the case frame of *important*:

(82) He is important to trust.

Starting from the sentence with an infinitive as Object, one goes through several transformational steps to extrude from it a surface subject: first, the infinitive moves to subject position and gives the sentence "To trust him is important" (from there we get "It is important to trust him"); next, *him* is taken out of the infinitive construction to become the nominative and the surface subject, while the infinitive itself is Chomsky-adjoined to the verb:



9. Adjectives belonging to the class of *anxious* include Experiencer in their case frames; optionally, they also include Goal, formally expressed as

a prepositional phrase or a *that*-clause:

(83) I'm anxious about him.
(84) I'm anxious for his arrival.
(85) I'm anxious that he should come soon.

Notice that the dependent clause verb in (85) is in the subjunctive; this, together with the fact that (85) transforms into (86), shows that the case relationship is different than with *happy*, where Experiencer is also obligatory:

(86) I'm anxious for him to come soon.

Since Experiencer is obligatory, (85) does not transform into either (87) or (88):

(87) *That he should come is anxious.
(88) *It is anxious that he should come.

10. The following summary shows the classes of adjectives (together with their case frames) which are expandable by *that*-clauses:

happy + $\left[-E_{in}(O)\right]$ (E_{in} = Experiencer subjected to the action of an internal force or quality, experiencing something from within)

aware$_1$ + $\left[-E_{in}O\right]$

true$_1$ + $\left[-O\right]$ (O = $\left[-\text{Human}\right]$)

obvious + $\left[-(E_{ex})\ O\right]$ (E_{ex} = Experiencer experiencing something from without)

sure + $\left[-(E_{in})\ O\right]$

sad + $\left[-(E_{in})\ (O)\right]$ (E_{in} can be chosen with or without O; O can be chosen without E_{in})

silly + $\left[-O\right]$ (O = $\left[\pm\text{Human}\right]$, including Inf)

important + $\left[-O\right]$ (O = $\left[-\text{Human}\right]$, including Inf)

anxious + $\left[-E_{in}O\right]$

One conclusion from the foregoing discussion of adjective classes is that case frames for individual adjectives are rather closely related to the set of transformations that these adjectives accept or reject. This is to say merely that the semantic content of each adjective determines its syntactic potential and that adjectives which differ semantically will also differ in terms of their possible syntactic transformations.

Another conclusion is that the list of cases provided by Fillmore in the recent version of his grammar is useful for an analysis of this kind, but that it will require further refinement. In particular, that semantic information concerning the inherent or non-inherent nature of the quality experienced by Experiencer, the nature (human, non-human, etc.) of Object, and the like will have to be included in the specification of the cases for each particular adjective.

NOTES

1. The list of available case relationships as given by Fillmore during the 1970 Linguistic Institute (Columbus, Ohio) runs as follows: A(gent), E(xperiencer), I(nstrument), O(bject), S(ource), G(oal), P(lace), T(ime), Ext(ent). Notice that the list is hierarchical and that the first case that appears in a given frame supplies the subject of the sentence.

2. This statement remains true despite the attributive uses such as *on this happy occasion*, *a glad look*, etc.: such examples cannot have sentences with inanimate nouns in subject positions as their underlying forms (**the occasion which is happy*, **the look which is glad*); they can be explained, rather, as metaphoric extensions or as abbreviations of relative clauses in which the predicative adjective -- before its movement into the prenominal position -- is syntactically related to an Animate subject: *the occasion which makes one happy*, *the look which shows that one is glad*.

3. This discussion does not cover another adjective, which may be marked *true*$_2$, whose use is illustrated in the following sentence:

   He was true to his character.

4. This is merely a syntactic consequence of the semantic content of the adjectives in question: statements can be true or false; actions cannot be true, though they can be silly or important.

5. This statement does not account for sentences in which important is unexpanded (e.g. He is important) and the human subject is a surface realization of the $\left[+\text{ Human}\right]$ Object in the case frame of the adjective.

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SOME CRUCIAL PROBLEMS IN THE THEORY OF CONTRASTIVE LINGUISTICS[1]

Contrastive linguistics is just entering a phase of new vitality. Its applications are receiving strong attention from the numerous European Contrastive projects. Like an amoeba, Contrastive Analysis has reproduced by self-division, so that beside the traditional interest in its applications to foreign-language teaching, we now witness 'purer' linguists taking an interest in the insights and procedures of CA, in the search for confirmation of their hypotheses about language universals. Indeed, an important conference took place in Hawaii this year: The Pacific Conference on Contrastive Linguistics and Language Universals.

I hope the latter type of universals-seeking CA will not tap the manpower of traditional applied CA, because we still have some very important problems to solve here. It is my purpose here to adumbrate just three of these crucial issues with the hope that the large number of practising foreign-language teachers among my readers, who are probably depressed at the plethora of abstract arguments by Applied Linguists, can go away conscious of the practical implications of these problems and the part that they must play in solving them.

The so-called Contrastive Analysis Hypothesis was developed by structural linguists such as Fries, H. Palmer, Lado, Weinreich, to explain the observation that learners of an L.2., tend to exhibit, when performing in the L.2., certain behaviours unrepresentative of that L.2. Moreover, these behaviours appear to be homogeneous for a population of learners having a common first language. The hypothesis claims that unacceptable L. 2. performance is the consequence of the learner 'transferring' by habit the patterns of his L. 1. onto his quasi-L. 2. performance. This undesirable effect is termed 'negative transfer' or 'interference'. Positive transfer also takes place, of course, when the L. 1. and L. 2. happen to coincide in their forms and patterns. Now, since any language is a system, or a 'system of systems', it must be possible to take a pair of languages, and by describing them independently, and juxtaposing those descriptions, discover exactly where and how they are different. CA is concerned with just this: location of differences between two language systems.

Notice that I have described two activities, one by language learners (making mistakes) and one by linguists (describing and comparing languages). In mentioning these two activities 'in the same breath' almost, I have begged two important questions. The first is whether there is any interesting relationship between a linguistic description and linguistic behaviour. If not, there can be no such thing as applied linguistics! Lets go on to the second question: is the contribution made by CA a predictive or a diagnostic one? Do applied linguists in fact take two language descriptions, and thereupon predict which kinds of difficulties and therefore what sorts of propensities to error the learners will exhibit? Or do linguists and teachers observe their students' difficulties and propensities to error and then subsequently carry out a CA in order to explain their observations? Opinions differ on this: Catford (1968), Corder (1968) and Wardhaugh (1970) see as the primary function of CA explanation rather than prediction. Wardhaugh refers to the explanatory rôle of CA as the 'weak' version of the hypothesis. The implication is to denote CA to the status of a subcomponent of Error Analysis, rather than a fully-fledged discipline in Applied Linguistics. I personally am gaining some notoriety by defending the contrary 'strong' version of the hypothesis, and maintain that CA is primarily *predictive*. Here are my arguments:

i) *Prediction of potential errors must be carried out as a mechanical procedure*. If, at a given comparable place in the grammars of L. 1. and L. 2., contrast is located, then learning difficulty will be predicted, automatically. Let the analyst *now* observe the learner's actual behaviour to ascertain the validity of his prediction, as Lado suggested (1957 p. 77): "The output of a contrastive analysis must be considered a list of hypothetical problems until validation is achieved by checking it against the actual speech of students". If error is not attested the analyst must revise first his descriptions of L. 1. and L. 2. and secondly his criteria for comparison, until his CA *does* yield valid prediction. To reformulate a Chomskian dictum: a CA is a device which will generate all of the L. 1. -specific nonsentences of the L. 2. and none of the L. 2. sentences. The approach, I emphasize, must be a hypothetico-deductive one.

Now compare the rigour of this approach with the alternative. When an error analyst discovers an error, how is he to decide whether to assign it to L. 1. interference or to a host of other factors, such as overgeneralisation within the target language, bad teaching, or low intelligence? This is his first difficulty. A second difficulty is overlooked by Wardhaugh (1970) when he says: "reference is made to the two systems only in order to explain actually observed interference phenomena". My objection is that it is only possible to reach a decision as to whether they *are* interference phenomena by reference to a theory of interference potential: this theory will be 'a priori' or predictive. It is a question of decision procedures that we must face: devoid of an explicit theory of interference potential, a predictive-generative CA, the error analyst's decisions as to the source of any given error will be arbitrary.

ii) Error Analysis will oversimplify the concept of interference. Language learners' errors fall into two broad categories: they may be either interlingual (resulting from L.1. interference) or intralingual (resulting from false conclusions as to the L.2. system on the part of the learner). The second category - intralingual errors - will present the Error Analyst with insuperable problems since many apparent overgeneralisation errors are in fact a result of imposing the conceptual apparatus inherent in one's L.1. on the formal apparatus made available by the L.2. itself. It will not be easy to decide which factor has been the more decisive in generating error. The only true exceptions are those errors studied by Richards (1970) which all learners of English commit, irrespective of their L.1. These are universal and hence totally attributable to the L.2.: but they are probably quite small in number and do not really provide a global 'noncontrastive approach' to error analysis. Therefore, many errors will be assignable to L.1. interference - these we can term errors of formal interference, since it is the forms of the L.1. which impose themselves directly on the learner's versions of L.2. And a large proportion of the rest of the errors will also be interference errors, but here the interference is not formal but conceptual in that "... it is the routes by which one proceeds from primary to secondary matter which determine the degree of L.1. interference" (James, 1971). My point is that a CA serving to account for observed errors will fail to see the origin of the conceptually-determined type of error that I have described, whereas a highly-developed predictive CA will.

iii) *Error analysis, by inferring competence from performance, fails to achieve significant generalisations*. The competence-performance dichotomy is widely accepted in linguistics. It is generally agreed that performance is based on, and a reflection of, competence. We must develop pretty sound descriptions of competence on which to base our descriptions of observed performance. Traditional CA recognises this necessity, as it is based on the comparison of two language descriptions as *systems*. These systems are models of the speaker-hearer, representing - in a possibly very indirect way - how he produces and associates his utterances. A predictive CA starts with the abstract systems and proceeds to make inferences about the performance of learner-speakers. Error Analysis takes the opposite approach: from the observed performance of learners it induces the learner's competence - his linguistic system. I would not question the value of studying 'transitional competence' as S. P. Corder (1968) terms the learner's system. But what is the point of inducing competence from performance if you must subsequently separate out various irrelevant features of idiosyncrasy and performance? You would have to have a lot of time to waste, since you could refer to a predictive CA. The time could more profitably be spent in refining the predictive capacity of CA theory so that it becomes applicable to any pair of languages involved in the learning process.

iv) *Error analysis, with its reliance on observation and taxonomy, cannot detect the systematicity of error*. The final point in defence of a predictive CA concerns its power relative to the alternative type of diagnostic CA preferred by error analysts. If we look at the behaviour of the error analyst towards his object of concern, and compare it with the contribution made by a predictive CA, we shall see which is the more energetic. The error analyst does two things with an error: (a) he locates it, and (b) he diagnoses it.

Since he is working with a finite corpus the error analyst is limited to actual errors, faits-accomplis. He is in no position, unless he invokes a predictive CA, to make statements about any errors, actual or potential, not found in his corpus. Even if he extends his corpus ad infinitum it remains a corpus. Just as powerful grammars describe potential as well as actual sentences of a language, we want a device that will account for potential as well as actual errors - this is the power of a predictive CA. As Hamp (1968) has said: "We want instead to develop a theory adequate to explain cases not in our corpus... We want, if you like, some kind of competence model here."

Secondly, an error analysis is capable only of dealing with obvious errors, that is, errors identifiable through their clear-cut deviance from comparable forms uttered by native speakers. But there exists another type of error which is unidentifiable as an error in a corpus of learner's speech or writing. These are the covert errors, which will be allowed to pass as acceptable performance if left to error analysts, whereas a fully developed predictive CA will be able to point to their potential incidence.

There is a strong tendency for error analysis not just to locate error, but to localise it. Perhaps such atomisation of error is a reflection of the taxonomic bent. Errors are most certainly not localised, since they are not random. Resulting as they do from the interaction of two systems they will be systematic, even symmetrical. I suggest that the most pressing task facing CA today is to discover the laws of implication for error potential. Just as Greenberg (1966) in his work on implicational universals discovered certain formal regularities to harmonise within languages, predictive systematic CA will be able to say where, given certain language misfit types, the learner will encounter learning difficulties.

In the space that remains I wish to mention two further problems of the CA hypothesis. They are related problems as each concerns the phenomenon of interference strength.

The first raises the question of typological distance between source and target languages, and the degree to which this distance is proportional to interference strength. If, as a native speaker of English, I try to learn German, will my task be easier, since English and German are cognate, than would be the case if I were learning a relatively exotic language, like Chinese? The traditional CA standpoint is stated by Barrutia (1967): "It was not an unexpected discovery to find that these interferences are considerably less between languages of the same immediate origin and increase in relative proportion as the more distant languages mesh in a common but far-removed source language." That some languages are harder to learn than others, given a certain L.1. as the starting point, is generally accepted. Cleveland et al (1960), speaking for English L.1. students, point out that French, German, Rumanian, Spanish and Italian are learned in two-thirds of the time needed to achieve the same proficiency in Russian, Greek, Finnish, and in half the time needed for Chinese, Japanese, Vietnamese. The diplomatic corps of most countries also classify foreign languages on a scale ranging from 'hard' to 'easy'. Since it seems that no language is intrinsically harder than any other - native infants acquire any language in about the same time - the crux of the difficulty must be the L. 1. of the learner. But Lee (1968) takes the opposite view: that an L. 2. typologically exotic vis-à-vis the L. 1. will not be interfered with, and he claims that learning Chinese lifted him into a new orbit of non-interference.

One relatively new insight into the problem is provided by current programs in the U.S.A. to teach to speakers of socially stigmatised nonstandard dialects a standard dialect of English. To qualify as two dialects of the same language, the two systems must be typologically close, of course, much closer than two languages, even cognate ones. Do we in fact learn an extra dialect of our own language more easily than we learn a second language? I contend that we do. Yet even on this point there is disagreement. In a recent book edited by Baratz and Shuy (1969) and devoted to the problems of teaching literacy to speakers of nonstandard dialects, two scholars clash head-on. Goodman (p. 14) holds firmly to the belief that interference strength is proportional to typological distance:

> "The more divergence there is between the dialect of the learner and the dialect of learning, the more difficult will be the task of learning to read."

Shuy (p. 130) takes the opposite view, that of W. Lee, insisting that the grosser differences between two dialects are less obtrusive than the minor ones:

> concluding "... that the greater the difference between standard and non-standard grammatical items, the more likely the intermediate child is to have developed an ability to read it successfully aloud." To illustrate, Shuy shows that reading difficulty is greater when minimal D. 1.:D. 2. differences

are involved, as between:

D.1.	D.2.
John house	John's house
She a cook	She's a cook

The reading difficulty is less when grosser interdialectal differences are involved, e.g.:

D.1.	D.2.
He don't got no toys	He doesn't have any toys
He don't be there ever	He isn't ever there

The last problem also concerns interference strength. The keystone of interference theory is that L.1. habits (or cognitive modes) are so deeply ingrained that they intrude on the habits and cognition territory of the L.2. being learnt. So we expect the strongest habits to exert the most inferference. Why is it, then, that when learning a third language it is the interference from the second language, not the L.1., which is the stronger? This is even more surprising when L.2. and L.3. bear little resemblance to each other. I suggest just two explanations. The first is that the phenomenon of L.2. intruding on L.3. is not interference in the same sense as it is generally understood in CA. That this may be the case is supported by the fact that learners are often consciously aware of L.2. intruding on L.3., but interference (of L.1. on L.2.) is unconscious. Therefore it is probable that, while 'intrusion' of L.2. onto L.3. is going on, at the same time there is interference of the L.1. onto the L.3. I wish teachers of foreign languages would publicise their observations of 'interference' and 'intrusion'.

An alternative explanation of 'intrusion' is in terms of psychological 'set', as it has been defined with reference to language by followers of the Georgian (U.S.S.R.) school of установка psychology, led by Uznadzie. Psychological set determines our expectancy, which in turn shapes our behaviour. Applied to foreign-language learning, it might suggest that a strategy for success unconsciously adopted by the learner is to expect difference. Therefore the L. 1. is shut out, and gaps in one's knowledge of the L. 3. are preferably filled by L. 2. material. The strategy may be a natural reaction to confrontation by a foreign language, or it may be inculcated by our teaching. Perhaps teachers, overenthused by the structural linguistic belief in the idiosyncrasy of languages, tend to overemphasise the differences and to underplay the similarities. There is in CA, of course, no suggestion, implicit or explicit, that we teach contrastively. Hadlich (1965) has misinterpreted CA in ascribing such a methodological implication to it. Others who misunderstand the CA hypothesis in this way tend to overstress the negative transfer potential of L. 2. learning situations, apparently unaware of the great potentials for positive transfer that exist. Perhaps, then, we can explain the learner's propensity to resort to an L. 2., when his knowledge of an L. 3. fails him, as a desperate bid to exclude the L. 1. at all costs, any kind of foreign-ness being preferred to using the L. 1.

I have had time only to touch upon some basic problems in the domain of CA. These three particular problems have been selected from a large number because progress in Applied Linguistics will depend on their satisfactory solution.

NOTE

1. This paper was read at the GAL Conference 1971 in Stuttgart.

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HOW CAN CONTRASTIVE LINGUISTIC STUDIES HELP FOREIGN-LANGUAGE TEACHING?[1]

'Learning a language' does not merely involve getting familiar with its forms and the ways in which the forms are related. A language is not a disembodied phenomenon but something which refers to and copes with everyday experience. Furthermore, it is something not to be understood except in so far as we understand that experience, and perhaps not even then. That is to say, we shall not understand the sentence Zmrzlina je v lednici unless we have learnt some Czech, but cannot fully understand either that sentence or The ice cream is in the refrigerator unless we have learnt what both ice cream and a refrigerator are. Language mingles with growing knowledge and experience. It is also a means of communicating and interacting with other people. Thus it cannot be regarded as a kind of jigsaw puzzle or marvellous complicated machine which can be examined and understood (up to a point) apart from its use in everyday living: it is not, for instance, like a radio set, the functioning of which can be studied without reference to the content of the speech and music it relays. Nor, so far as the language-learner is concerned, is language acquisition so much a matter of understanding how the forms are used as of successfully using them.

The point I wish to make here, however, is that foreign-language learning means learning to use the forms to cope with experience and does not simply mean getting acquainted with the forms. The dichotomy between the forms of a language (above all, the syntactic forms) and their uses is essential, it seems, for the language-teacher, whose main task is to ensure that his pupils can use the forms for communication. And - to digress for a moment - there appears to be no reason for assuming that the job has to be done in two stages: first, teaching the forms and thereafter teaching the uses of the forms: on the contrary, forms and uses appear too closely bound together for this to be reasonable to attempt.

Such is linguistic economy that many of the forms have a number of different uses, more or less distinct, and therefore present a number of more or less distinct learning and teaching problems. There are numerous examples in English: for instance, the definite article, and the so-called present perfect tense-form. Adult students ask 'When should one use the present perfect and when the simple past?' A fair question, though not easy to answer in terms they can understand and apply. To seek a descriptive rule accurate enough to indicate all the circumstances in which the one but not the other can be used seems futile, landing the learner in a desert of abstraction. Instead, one can only try to embody the uses in situations which the learners can grasp and which have some appeal to them: that is, try to involve the learners in simultaneous experience of the form and of part of the experience or 'reality' that, so to speak, belongs with it. At any one point in the teaching process the learner is thus acquiring a knowledge of - or, perhaps better, a feeling for - a range of circumstances (largely extra-linguistic) in which such and such a form (e.g. a tense-form) can safely be used. The range must be narrow at first (for instance, a small number of situations found or created in the classroom or discovered in pictures), and the success with which the range is expanded is in a high degree a measure of the success of the teaching.

Learning a language is learning to fit forms and circumstances (situations) together, and this is a gradual process. First, there is the obvious fact that the range of circumstances is wide. A language-learner with a good basic command constantly continues to become aware of new circumstances, often differing but slightly from those known to him, in which this or that form can be used. It is a gradual process, however, for yet another reason – rarely, I think, stated or recognised – and this is that full mastery of the use of one form depends on mastery of the use of others. The uses are, indeed, mutually determinative, in the sense that the process of grasping one - that is to say, of progressively grasping the range of circumstances in which it can be used - depends, to some extent at least, on grasping the range of circumstances in which others can be used. When you have relatively little to choose from, through having experienced the uses of few forms, you are presumably more likely to err by associating a form with circumstances to which it is inappropriate. (When you have only one tool, you try to do various things with it.)

Let me try to illustrate this by reference to the tense-forms of English. In talking or writing about something which has happened in the past, various tense-forms can be used. The learner may already have grasped one of the uses of the present perfect, namely, that which refers to an action recently performed, the result being still visible, as in You've dropped your handkerchief. By means of examples of this sort, presented in an interesting and meaningful way, a certain narrow range of circumstances (perhaps, to begin with, belonging to the classroom alone) becomes associated in the learner's mind with use of the present perfect form, and the form with the circumstances. At a further stage of learning there are other uses of the present perfect to be grasped: for example, that which manages to refer to past happenings without specifying when they took place, as in *He has visited many countries.* Command of this use may seem far removed from command of the *You've dropped your handkerchief* use, and so at first it may be if, for ease of learning progress, none of the examples come near referring to present time. Later, however there will be such occurrences as *Has Peter been away for his holiday? Yes, he has* (although the effect of this action may not be visible in sunburn) and *They've moved to Brighton, I hear* (though one can only imagine them there and may not bother to do that). At this stage the learner begins to acquire a better appreciation of the *You've dropped your handkerchief* range of occurrences, feeling that after all the essential feature is not that the effect of the action is *visible* but something else. And if either of these uses of the present perfect form is experienced along with certain uses of, say, the present continuous and the *going to* forms, whether taught earlier or not, then again there is 'sharpening' or strengthening of the command of any one because of skill with the others. So the association of utterances like *It's going to land*, *She's going to cook the dinner*, etc. with situations of a certain type is all the better perceived when there is awareness of the association of *It's landing*, *She's cooking the dinner*, etc., and also of *It's landed*, *She has cooked the dinner* etc. with situations of other types.

If time allowed, it would not be difficult to give other examples. For instance, even with good circumstantial presentation of the adjective *red*, is there complete grasp of it (i.e. of its reference) until there has been circumstantial experience of other colour-adjectives too? It takes some time to learn *red*, because it takes some time to learn what is named otherwise. It is not a matter of getting to know the phenomena themselves, but neither is it a purely linguistic matter: it is a matter of learning to associate, or to re-associate, phenomena and language.

Similarly with uses of the definite and indefinite articles: one cannot have mastered fully any one use of *the* until one has grasped uses of *a* and doubtless other uses of *the* also. *The* contrasts in various ways with *a*, but these are not merely formal contrasts; they involve contrasts in the situations to which the language makes reference.

As I have suggested elsewhere, a language cannot, for language-teaching purposes, be regarded as 'a collection of separable and self-sufficient parts' On the contrary, the parts (though that hardly seems the word) are 'mutually dependent and mutually determinative'[2].

For this reason, if for no other, it seems unsound to say that the linguistic content of a foreign-language course should be based on the apparent *differences* between the learners' native language and the language to be learnt, as if the apparent identities or similarities could be ignored. A language is not that kind of a patchwork, if it is a patchwork at all. Some features are easier to teach than others in a given learning-situation, but to leave them out would surely be to take an over-simple and erroneous view of language-learning. The use of such features is determined by the use of other features, and vice versa, and as the command of one thing grows the command of other things is able to grow. In planning a foreign-language course, one should have that language (the uses of its main forms) in mind as a basis rather than supposed differences between it and the learners' own. Apart from this, can we yet make reasonably complete comparisons of the ways in which the main forms of two languages are used to refer to and cope with experience?

Contrastive studies can nevertheless be of great use to the language teacher. Although errors should be observed rather than guessed at, contrastive study can often reveal their origins. Awareness of the origins promotes a sympathetic attitude on the teacher's part: otherwise there is an almost inevitable tendency to think the learner slightly stupid. Understanding of the origins also opens up the possibility of remedial work, and perhaps of so 'placing' the difficulty in the course that its difficulty is minimised.

Interference from the learner's first language is not the only cause of error, or the only type of interference. At any point in the learning process, expectations have been aroused by what has already been acquired of the language - expectations as to the nature of what remains to be acquired: the kind of forms, the kinds of use to be made of the forms. The effect of analogy is to throw forward in the learner's path beliefs about the language which are only in part justified by what he has still to learn, and there is thus some conflict between unknown and known. If, for example, when the present perfect is introduced, none but regular past participle forms are used (*walked*, *opened*, etc. and not *drawn*, *written*, *shut*, etc.) the learner is likely to expect *drawed*, *writed*, etc., even if he does not produce these forms. It would be helpful to have contrastive studies of a kind revealing some of the interference caused by what has already been learnt of the new language. Studies of this sort would be based on observation of performance at successive stages in a course, but full account would have to be taken of the teaching procedures adopted and the resulting statement would not necessarily be valid for other procedures. Any assessment of teaching procedures might include the question: How can the setting up of erroneous expectations be avoided? As far as the participle forms previously mentioned are concerned, erroneous expectation might be weaker if a mixed batch of regular and irregular forms were introduced simultaneously.

Contrastive studies of both types can be very helpful in revealing why the learner has certain difficulties, rather than in showing up what the difficulties are. Prediction of what they ought to be seems roundabout. Yet it has to be admitted that contrastive analysis may give deeper understanding of the nature of the error.

In conclusion – and I hope not irrelevantly – I would like to say something about eager to please and easy to please, so often on parade in contemporary linguistics. If, as I have suggested, the teaching of a foreign language is not simply, or even mainly, a matter of familiarising the learners with its forms, but is more accurately to be described as enabling the learners to associate the forms appropriately with circumstances, then how can one do this for the two structures here in question? Firstly, if there is any danger of confusing them, it would seem necessary to keep them at first well apart, by bringing them into the language course at widely separated points of time. Secondly, I would not introduce them by means of these examples, which refer to circumstances more 'abstract' (in a loose sense of the word) and less readily observed and understood than certain others. Thirdly, how they are introduced depends in part on what has been taught previously.

The *eager to please* structure is not very hard to teach and should probably be brought in a long time before the *easy to please* structure - not of course that one would normally plan in this way, with an illustration from linguistics as a starting-point! Indeed, in a classroom course, the structure may have slipped in already, as an incidental, with the teacher's *Are you ready?* repeated on a number of occasions, and expandable without explanation to *Are you ready to begin?* Formal teaching hardly seems to be necessary, though the teacher should be aware of the instances the class seems to have absorbed. Younger children are often anxious to clean the blackboard, or to write or draw on it, and *Who wants to clean the blackboard?* can readily be brought in and explains itself. *John wants to clean it - he's eager to clean it:* this may be obvious. *Is Bill eager to clean it?* - it may be equally obvious that Bill is not!

Similarly clear situations lending themselves to the use of this structure in the classroom may be associated with the wish to do other things, e.g. to re-tell a story, to work a piece of equipment, or to see a film. Once the structure has been introduced and understood in clearly perceptible situations, use can be made from time to time of situations which are less perceptible. Some of these the learners should find in their reading-texts, where the general meaning of the whole will help to illuminate the meaning of particular phrases. As far as comprehension goes, there is no great teaching problem. Time is needed to develop easy production, and substitution tables, preferably based on meaningful passages, may be a help. Incidentally, the number of common adjectives which can take part in this structure is very limited: *ready, anxious, willing, eager, glad,* and a few more.

The easy to please structure has a different kind of 'situational base'. Again, the example itself does not offer a good starting-point, as the situation of He is easy to please is not a simple and visually obvious one. What obvious situations in the classroom lend themselves to the use of this structure? Drawing and writing on the blackboard, for instance. There may be details in a picture. 'Can you see the name on this shop?' 'No, I can't, it's too small.' 'It's hard to see.' Something else - a cupboard - may be very heavy, and hard to move: on the other hand, a light chair is easy to move. There is no severe teaching problem here either, so long as one begins with the 'concrete' and easily perceptible. (I see no urgent reason for teaching the transformation It is easily moved or It is easily seen at this stage.)

I have picked on eager to please and easy to please for no better reason than that they have been, so to speak, in the news. However, I think they serve as well as anything to illustrate the point that language-teaching is essentially the association of forms with types of situation. What possible meaning could the forms have except for this association? Nobody could imagine easy/eager to please to be confusable who had seriously considered how to teach them by situational means.

In so far as we need - perhaps in language-course planning - to contrast forms, we should contrast them together with the types of situation with which they are associated.

NOTES

1. This article is a slightly modified version of a paper read at the AILA Conference in Cambridge, 1969, and has not been published elsewhere.

2. Cf. 'Thoughts on Contrastive Linguistics in the Context of Language Teaching', in the Monograph Series on Languages and Linguistics, No. 21, 1968, 19th Annual Round Table, ed. by J. E. Alatis, Georgetown University School of Languages and Linguistics, p. 192.

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EXISTENTIAL SENTENCES IN ENGLISH AND SERBO-CROATIAN

Introduction. We shall call "existential sentences" all those sentences that are introduced by the so-called "existential" or "non-locative" *there*. In the following examples the existential *there* is italicized, while the locative *there* is not.

(1) *There*'s a car behind the house.
(2) *There*'s a car there.
(3) Behind the house *there*'s a car.
(4) There, *there*'s a car.

The non-locative *there* is easily distinguished from locative *there*, since the two words differ both phonologically and distributionally. The phonological and distributional criteria, as well as criteria based on transformational potential, for distinguishing the two homographs have been stated exhaustively by Jespersen[1] and Allan[2]. We should only like to mention the well-established fact that existential *there* behaves syntactically as subject of the sentence (Jespersen calls it "quasi-subject"[3]), though it is not in number agreement with the finite verb. *There*, like the expletive *it*, is a kind of position filler, which entails the displacement of the initial NP in the sentence and functions as subject in questions, short answers, question-tags and other similar constructions,[4] inverted statements, and some other transforms.

(5) *There* has been a lot of rain lately.
(6) Has *there* been a lot of rain lately?
(7) Yes, *there* has.
(8) There has been a lot of rain lately, hasn't *there*?
(9) *There* has never been such a lot of rain.

(10) Never has *there* been such a lot of rain.

Here is one more transformation in which *there* behaves as subject. Sentences where a non-factive verb is followed by a sentential complement can undergo a transformation which turns the initial NP of the embedded clause into the subject of the main clause, converting the rest of the embedded clause into an infinitive phrase.[5]

(11) It seems that *he* is a good man.
(12) *He* seems to be a good man.
(13) It seems that *there* has been a lot of rain lately.
(14) *There* seems to have been a lot of rain lately.

Source of existential THERE. Existential *there* is an abstract function word ("existential functor"), but its source and status has not been unequivocally determined either in TG grammar or grammars of more traditional orientation. Chomsky[6] and Perlmutter[7] argue that *there* is not present in the deep structure, but is inserted transformationally. Fillmore suggests that in such sentences as:

(15) There are some books on the shelf

there is the pro-form of the left copy of the locative actant. Starting from the underlying structure

(16) Pres be with some books on the shelf

either *with some books* can be made subject entailing the deletion of the preposition *with*:

(17) Some books are on the shelf

or the locative may be copied in subject position:

(18) on the shelf are with some books on the shelf

and then replaced by the pro-form *there*, so that (19) is obtained:

(19) There are some books on the shelf.[8]

If all sentences introduced by the existential *there* were of the locative type Fillmore's thesis might be accepted. But a large number of them are not (e.g. *There's evidence that he is a murderer. There are some prisoners who have escaped.*) and it would be awkward to have to establish various sources for the existential operator. It would be much simpler to account for the source of existential *there* if the view that the category of noun is a basic one were rejected and Bach's suggestion that "a system of quantifiers and variables is worth exploring as a possible part of the base rules" were adopted.[9] We shall assume that the existential *there* is the existential quantifier of formal logic $\exists$, and that $\exists$ is present in the underlying structure of a noun phrase, so that

a (some) horse

could be derived from (the variable corresponds to a referential index)

(20) ($\exists$x) (x is a horse)

or translated into more explicit terms:

(21) there is an $\underline{x}$, such that $\underline{x}$ is a horse

If this suggestion is adopted then the logical consequence would be that existential *there* is generated at a very abstract level with every noun phrase which has in its structural index $\left[- \text{definite}, + \text{referential}\right]^{10}$.

Existential quantifiers. The existential functor $\exists$ is the logical symbol for existential quantification and it may be realized in surface structure either as *there is + existential quantifier + nominal:*

(22) there is a book

or as *existential quantifier + nominal:*

(23) a book, some book

Existential quantifiers are those that claim that at least one member of a set is referred to (*a*, *some*, *much*, *many*, *few*, *several*,[11] *one*, *two*, *three*, *etc.*, *somebody*, *something*), whereas universal quantifiers claim that *all* or *any* member(s) of a set are referred to (*all*, *both*, *every*, *each*, *any*, *everybody*, *everything*). The function of the existential quantifier is to single out one, two, three etc., or an indefinite number from all existing objects of the same class and to direct the hearer's or reader's attention to them.

(24) *A* towel was on the floor.
(25) There was *a* towel on the floor.

But:

(26) Both towels were on the floor.
(27) * There were both towels on the floor.

As we can see from (27) universal quantifiers are excluded from existential sentences. Besides the universal quantifiers, there are other referential devices which are incompatible with existential quatification. All referential devices that determine uniquely (*this*, *that*, *the*, *my*, *your*, *etc.*, *John*, *John's*, *I*, *you*, *etc.*)[11a] are as a rule incompatible with existential quantification.[12]

We have already mentioned that NPs in existential predications must have the features [- definite, +referential] and we have stated which quantifiers are compatible with existential quantification. But some of those quantifiers such as *a*, *somebody* are not interpretable as existential in every context. In (28):

(28) A cat doesn't like vegetables.

a in the initial NP is a generic determiner, paraphrasable as the universal quantifier "any", and therefore lacks the feature [+referential], which makes it incompatible with the existential functor *there*, whereas *a* in (29)

(29) A cat was sleeping on the mat.

is paraphrasable by "a certain", therefore the indefinite NP *a cat* has the feature [+referential][13] so that the requirements for an existential quantification are satisfied:

(30) There was a cat sleeping on the mat.

The NP a book is ambiguous as to the feature [referential] in (31):

(31) I want to buy a book on Yugoslavia.

In one of the interpretations a book may be [-definite, -referential][14] meaning "any book on Yugoslavia", "I don't care which book", so that it cannot be concatenated with there. In its alternative interpretation a book is [-definite, +referential] meaning "a certain book" so that (31) can be paraphrased as:

(32) There's a book on Yugoslavia I want to buy.

The so-called "indefinite pronouns" (somebody, some one, something) are made explicitly referential in sentences introduced by existential there while in other types of predication they may be non-explicit in that respect.[15]

(33) When he comes back from work he gives somebody a lift.

(34) There's somebody he gives a lift to when he comes back from work.

In (33) somebody may be the same person each time, but it need not, whereas in (34) it must be the same person.

Noun phrases which are not explicitly quantified are interpretable as referential when concatenated with existential there:

(35) There are non-poisonous snakes.

whereas their paraphrases without the existential there must have the existential quantifier explicitly stated:

(36) Some snakes are non-poisonous.

The NP *snakes* in (37):

(37) Snakes are non-poisonous.

can be interpreted only as generic[16] and (36) and (37) cannot be in a paraphrase relation. If the synonymy of (38) and (39) is to be preserved, *some* *(certain)* must be explicitly stated in the underlined NP of (39):

(38) There are *questions* that you don't ask
because you are afraid of the answers
to them.

(39) You don't ask *some (certain) questions*
because you are afraid....

We have stated before that the quantifier *any* cannot quantify a noun phrase which follows existential *there,* because such an NP lacks the feature [+referential]. *Anything* and *anybody* cannot be introduced by existential *there* for the same reason. We shall call these quantifiers *any*$_1$, *anything*$_1$, *anybody*$_1$ to distinguish them from the isomorphic forms *any*$_2$, *anything*$_2$, *anybody*$_2$ which are variants of *some*, *something* and *somebody* in hypothetical statements, questions and negatives.[17]

(40) Is there any tea in the tea-pot ?

(41) If there isn't any tea in the tea-pot
I'll have a cup of milk.

(42) Is there anybody in that room ?

A negated existential predication means an empty set:

(43) There's nobody at home.

(44) There's nothing in that drawer.

(45) There's no sugar.

(46) There's none.

General existential statements. *There + be + NP* rarely constitutes a predication in itself, since sentences of general existential type where the existence of an entity is asserted, denied or questioned are natural only in philosophical contexts.

(47) It is plain, to begin with, that sensible
qualities fall into genera. There are colours, there are sounds, there are smells
and tastes.......[Russell (1951, 162)]

Outside philosophical language, There+be+NP as a general existential statement, appears under contrastive stress which implies some kind of context dependence, being an answer to a question or a contradiction of a previous statement as will be obvious from the following examples:[18]

(48) A: Do you really believe in fairies ?
B: Yes, I do. THERE ARE fairies.

(49) A: Nobody has ever seen a white monkey.

(50) B: There ARE white monkeys.

(51) A: I'm afraid to go out tonight. There are GHOSTS.[19]
B: Don't be silly. There AREN'T any ghosts.
A: There ARE ghosts. There are TOO ghosts.

Though:

(52) Monkeys exist.

may be considered tautological or semantically empty it is a grammatically well formed sentence, while (53) and (54) are unacceptable:

(53) * There are monkeys.

(54) * There are books.

without an understood locative or some other adverbial which is recoverable from the context.[20]

(55) a. What animals are there in these forests?
b. There are monkeys.

The grammatical acceptability of sentences introduced by existential there seems to depend on our ontological commitments.

(56) * There ARE books.

is not acceptable as a general existential statement, i.e. as a statement asserting the existence of objects such as books. The existence of objects such as books is established and their availability at some location may be stated, questioned or denied, whereas the existence of fairies, ghosts and unicorns is not established and can therefore be debated. That is why the grammatical acceptability of general existential statements of everyday language mirrors our ontological commitments.

General existential statements of the following type:

(57) There are wise people.
(58) There are nine planets.

are acceptable not only because some vague locative such as "in this world" and "our solar system" is understood, but because the adjective "wise" and the numeral "nine" have predicative import.

(59) There are people who are wise.

Since (60):

(60) * There is honesty.

is not acceptable as a general existential statement, existential sentences may often contain a general noun such as thing introducing an abstract nominal:

(61) There is such a thing as honesty.
(62) There is such a thing as a run of bad luck.

There are certain anaphoric elements (which are not confined to existential statements) which mark existential sentences as context bound. They could form a special category which could be established only in reference to discourse. We shall mention only such and other since we cannot pursue the subject here. It requires further study and formal treatment. Such and other pronominalize propositions and signify that a deletion over sentence boundary has taken place. (63) and (64) would be unacceptable without the anaphoric elements.

(63) There are such examples (understood:
as the ones just adduced).

(64) There are other examples (understood:
than the ones just adduced).

The existential IMA in Serbo-Croatian. The formal SC correspondent of the English existential there+be phrase is the so-called "impersonal" IMA. IMA, which is a non-concord form, is isomorphic with the present tense third person singular of the verb IMATI (= have). The verb be in existential predications, though a carrier of number concord, is, in fact, like its SC correspondent IMA, an impersonal form as it is not in opposition to the form am and the second person form are as can be seen from:

(65) There is you and myself.[21]

The rules concerning the acceptability of general existential statements hold good across both languages. The example:

(66) * Ima knjigâ. (There are books.)

is unacceptable as a context independent statement just as its English equivalent is, whereas:

(67) IMA duhova. (There ARE ghosts.)

is acceptable as the contrastive stress points to its dependence on the previous context. The NP duhova (=ghosts) is inflected for the genitive plural, as the form IMA introduces plural NPs inflected for the genitive. It is worth noticing that the verb postojati (=exist) is often used in SC as a translation equivalent of there+be in general existential statements, postojati being much more frequent than exist is in English. In example (47)

there are colours, there are sounds,
there are smells and tastes.....

there are would be rendered into SC as "postoje":

> postoje boje, postoje zvukovi, postoje
> mirisi i ukusi....

The use of IMA in the above examples would not suggest the assertion of existence in a philosophical context, but would give the impression of an unsaturated predication and arouse expectation of some complement (e.g. ima boja *koje su jarke* =there are colours *which are bright*, etc.)

Existential-locative sentences. Although all existential sentences could be interpreted as being implicitly locative[22] it seems to us that the setting up of a special existential locative type is warranted from a linguistic point of view.[23] The justification for this attitude will be much more obvious once we establish the other SC translation equivalents of English existential sentences, which are much more semantically discriminative than the English sentences introduced by the existential *there.* The fundamental difference between a statement such as:

(68) There ARE fairies.   IMA vila.

(assuming even that a general locative such as "in the universe" is implied)

and:

(69) There are lions.   Ima lavova.

is that (69) must have a concrete deleted locative which is recoverable from the context, while (68) need not. In (70):

(70) a. What animals are there in this desert?   Kakvih životinja ima u ovoj pustinji?

b. There are lions.   Ima lavova.

the existence of lions is being taken for granted and their availability at a certain location is being asserted. When we ask:

(71) Are there lions in Africa ?   Ima li u Africi lavova?

we do not question the existence of lions but their availability at a certain location[24], so that the setting up of a locative-existential type of sentence is warranted not only on semantic but on linguistic grounds as well.

The unmarked word order in English locative-existential sentences (the temporal adverb being taken as a location in time) is:

There + be + NP + Loc

(the NP following *there + be* is the grammatical subject, the locative following it is the predicative), while the unmarked word order in SC equivalents is[25]:

Loc + ima + NP

(72) There is a garage behind the house.	Iza kuće ima garaža.
(73) There's a concert at five o'clock.	U pet sati ima koncert.

That the locative is interpretable as the predicative can be seen from the synonymous pairs:

(74) A towel was on the floor.
(75) There was a towel on the floor.

Though the cognitive meaning of (74) and (75) is the same, (74) is more emphatic and would probably be pronounced with sentence stress on TOWEL, thereby showing surprise at finding such an object as a towel where it does not belong.[26]

Though (74) is acceptable, (76) would be much less so:

(76) A concert is at five o'clock.

and (77) is unacceptable:

(77) * Running water is in the house.

It is an idiosyncrasy of English surface structure that in sentences where *be+Loc* constitutes predication indefinite referential NPs are not frequent in initial position. Some sentences such as (78):

(78) Somebody was in the kitchen.

are more acceptable than others though at present this intuitive feeling escapes formalization.

The locative phrase may be thematized in English existential sentences, but the locative in initial position usually suggests context dependence and such sentences are as a rule stylistically marked as belonging to connected written narrative prose. The thematised locative ties up with what is known from previous context.[27]

(79) They moved along *the hall*. *At the end of the hall* there was a window and a man was looking out of it.

This inversion, very frequent in written English, especially where the subject is a "heavy"[28] noun phrase and the nominal predicate is a locative prepositional phrase, usually dispenses with existential *there*:

(80) The place was bounded on the northern side by a low *balcony* filled in below with cupboards.... *Above the balcony* were five long windows, each about five feet high, through which......

But if the English existential sentence appears in included position, i.e. if it is a constituent of another NP+VP string, the locative cannot take initial position.

(81) *In one corner of the room* (there) is a piano.

(82) *I don't know whether *in one corner of the room* (there) is a piano.

(83) There's a concert *at five o'clock*.

(84) *If *at five o'clock* (there) is a concert, we shall cancel the meeting.

The locative in SC existential sentences preserves the same freedom of movement in an embedded clause as it has in an independent clause (of course, with slight differences in emphasis).

(85) U jednom uglu sobe ima klavir.
(86) Ne znam da li u jednom uglu sobe ima klavir.
(87) Ne znam da li ima klavir u jednom uglu sobe.
(88) U pet sati ima koncert.
(89) Ako u pet sati ima koncert otkazaćemo sastanak.
(90) Ako ima koncert u pet sati, otkazaćemo sastanak.

Rules pertaining to SC equivalents of E existential-locative sentences. Since SC existential sentences have not received formal treatment by authors of SC grammars we shall try to state briefly some rules applicable to sentences introduced by existential IMA and its corresponding perfect form BILO JE, especially with respect to the case form of NP they introduce.

From the SC translation equivalents of E sentences (72) and (73) we can see that existential IMA introduces an NP in nominative form (garaža, koncert). IMA is followed by the nominative form of nouns that have the features [+sing., +count.] [29]

(91) U bašti ima jedan lav. (There's a lion in the garden.)

If IMA introduces a countable NP in the plural, the NP is inflected for the genitive.

(92) U Africi ima lavova. (There are lions in Africa.)

If IMA introduces an NP with the features [-plural, -count.] the NP is inflected for the genitive,

(93) U kutiji ima *šećera*. (There's
sugar in the sugar-tin.)

though the genitive form may alternate with the nominative (there is a slight semantic difference, the genitive emphasizing the partitive meaning).[30]

(94) U hladnjači ima *pivo*. (There's beer
in the fridge.)

(95) U hladnjači ima *piva*. (There's some beer
in the fridge.)

There+was is rendered into SC by the non-concord form BILO JE,[31] which is isomorphic with the perfect third person neuter singular form of the verb *biti* (=to be), wherever the genitive form of the NP is used.

(96) U kutiji je bilo *šećera*. (There
was sugar in the sugar-tin.)

(97) U vrtu je bilo *lavova*. (There
were lions in the garden.)

But IMA followed by an NP in the nominative has no corresponding "impersonal" form in the perfect. The concord forms of the verb *biti* (=be) are used instead (the auxiliary being in number and person agreement and the participle in number and gender agreement with the subject NP).

(98) Na podu *je* bi*o* jedan *peškir*. (There
was a towel on the floor.)

(99) U bašti *je* bil*a* jedna *devojčica*.
(There was a girl in the garden.)

(100) U parku *su* bil*e* tri *žene*. (There
were three women in the park.)

IMA alternates with the verb *nalaziti se* (=be located) in the existential-locative sentences where the subject NP has the semantic feature *physical object*.[32]

(101) Iza kuće se nalazi (ima) garaža. (There's a garage behind the house.)

(102) Na stolu se nalazi (ima) jedna srebrna pepeljara. (There's a silver ashtray on the table.)

Relatedness between locative-existential and possessive sentences.

Recent studies on existential sentences in several unrelated languages suggest that the relatedness between possessive, existential, and locative sentences may be a language universal.[33] This conclusion rests on the assumption that *be* and *have* (as a "main" verb) do not appear in the deep structure of sentences[34] but are introduced by transformational rules.[35] It is suggested that the copula *be* is "a purely grammatical element which carries distinctions of tense, mood and aspect in the surface structure of certain classes of stative sentences".[36] This assumption is corroborated by the fact that there are languages (e.g. Russian, Ancient Greek, Hungarian[37]) where the copula is not present even in the surface structure or is present only under certain conditions.[38] That *have* is similar to *be* with respect to its status in the deep structure is obvious from the fact that locative sentences with the verb *be* have their counterparts in the possessive-objective sentences. The correctness of the assumption is also borne out by diachronic development.[39] The relatedness is much more obvious in SC where the existential IMA is isomorphic with the possessive "ima" (and diachronically related). Sentences such as:

(103) I have a TV in my room. U sobi imam televizor.

(104) There is a TV in my room. U mojoj sobi ima televizor.

are only two different surface structure realizations of the same deep structure. Fillmore[40] calls such a deep structure verbless, the element V being present but lexically empty. Whether be or have gets inserted depends entirely on structural conditions. In such pairs of verbless sentences the structural conditions for inserting have arise when the object NP follows the V slot:

(105) He has a TV in his room. On ima televizor u (svojoj) sobi.

When the object NP fills the subject slot there+be is inserted.

(106) There's a TV in his room. U njegovoj sobi ima televizor.

It is not a chance coincidence that there+be requires an indefinite referential subject NP just as have requires the object NP to be indefinite.[41]

Since we have illustrated the principle on a very simple example, we shall adduce some more complicated structures which involve additional transformations.

(107) Mary has a piano in her room.[42]

Sentence (107), which has an NP with a human referent in the subject position (this NP in such sentences is not an agent) and a coreferential possessive pronoun in the NP of the locative phrase, takes the form of a there-sentence if the object NP fills the subject position, in which case the subject NP of the have-sentence turns up in the possessive form in the locative phrase.

(108) There's a piano in Mary's room.

The locative in a have-sentence must contain an element coreferential to the animate subject of have for the sentence to be synonymous with a there-sentence.

(109)	John has an apple-tree in his garden.	Jovan ima jabuku u (svojoj) bašti.[43]
(110)	There's an apple-tree in John's garden.	U Jovanovoj bašti ima jabuka.

But (111) and (112) are not in a paraphrase relation as they do not fulfill the above condition.

(111)	Mr. Smith has a huge hotel in Oxford Street.	Gospodin Smit ima ogroman hotel u Oksfordskoj ulici.
(112)	There is a huge hotel in Oxford Street.	Ima (postoji) jedan ogroman hotel u Oksfordskoj ulici.

That much more detailed rules than the ones just stated are required is obvious from the following pair of sentences which are not in paraphrase relation:[44]

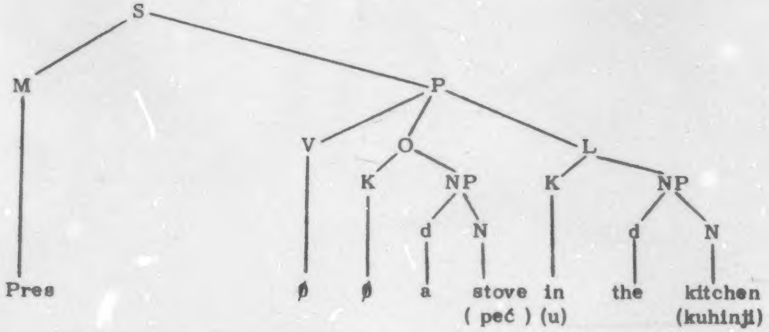
(113)	Mr. Smith has a huge hotel in his native town.	Gospodin Smit ima ogroman hotel u svom rodnom mestu.
(114)	There's a huge hotel in Mr. Smith's native town.	Ima ogroman hotel u rodnom mestu g. Smita.

We shall now consider sentences where the NP from the locative is made the grammatical subject of the sentence.

(115)	There's a stove in the kitchen.	U kuhinji ima peć.
(116)	The kitchen has a stove in it.	Kuhinja ima peć.

Both (115) and (116) can be derived from the underlying structure in (117) if we base the deep structure representation on Fillmore's case grammar.[45]

(117)



If the object NP is made the grammatical subject of the sentence, be is inserted and (118) is obtained.

(118) There is a stove in the kitchen.   U kuhinji ima peć.

If the object NP follows the V slot, then the verb have is inserted, the locative phrase is copied in initial position (thus filling the subject slot), its initial preposition gets deleted, and the original NP in the locative phrase (which is coreferential with the NP in the subject slot) is pronominalized (in it), so that (119) is obtained.

(119) The kitchen has a stove in it.   Kuhinja ima peć.

In English the subject copy in the locative phrase is pronominalized as a personal pronoun as in (119). Since cross-reference in SC between a subject NP and any other element in the sentence requires pronominalization with a reflexive pronoun, and since the SC reflexive pronoun (sebe) cannot normally refer to inanimate nouns, the pronominalized element must be deleted in case of NPs with inanimate referents, so that (120) is unacceptable.

(120) * Kuhinja ima peć u sebi.

(121) Kuhinja ima peć.

With NPs that have an animate referent the pronominalized copy in the locative phrase is optional in SC (though this rule would probably require further refinement).

(122) U njemu nije bilo ničeg čudnog. (There was nothing strange about him.)

(123) On nije imao ničeg čudnog (u sebi). (He had nothing strange about him.)

Ross[46] points out that there are some further constraints on the transformations we are dealing with when the possessive NP is an inalienable possessor.

(124) There is a pimple on the end of Jerry's sister's nose. — Ima bubuljica na vrhu nosa Džerijeve sestre.

(125) *Jerry has a pimple on the end of his sister's nose. — *Džeri ima bubuljicu na vrhu nosa svoje sestre.

(126) Jerry's sister has a pimple on the end of her nose. — Džerijeva sestra ima bubuljicu na vrhu nosa.

We shall not pursue the details of the transformational rules involved in these sentences, but should only like to point out another difference in transformational potential between E and SC.

(127) My grandfather had three sons. — Moj deda je imao tri sina.

As (127) has no locative phrase English has no paraphrase with the existential there+is, whereas in the SC equivalent it is possible to turn the subject NP into a quasi-locative phrase by preposing the preposition u (=in) and adding the genitive suffix to the noun (the whole phrase has possessive meaning).[47]

(128) U mog dede je bilo tri sina. (*At my grandfather there were three sons.)

Although the paraphrase relationship between the locative-existential and the possessive have-sentences has been well established[48] it has not been pointed out that there-sentences, which may have two interpretations, are synonymous with have-sentences only under one of their interpretations.[49]

(129) The car has a TV (in it). Kola imaju televizor.

could be glossed as "The car has a TV which is built in", whereas

(130) There's a TV in the car. U kolima ima televizor.

can be synonymous with (129) under one interpretation or it may mean that a TV has been left sitting in the car.

(131) The hospital has 30 doctors. Bolnica ima 30 lekara.

means that the hospital employs 30 doctors, while:

(132) There are 30 doctors in the hospital. U bolnici ima 30 lekara.

may be synonymous with (131), but it may also be interpreted as stating that there are 30 doctors present in the hospital irrespective of the number that the hospital usually employs. In examples such as:

(133) The house has central heating (in it).[50] Kuća ima centralno grejanje.

(134) The room has running water (in it). Soba ima tekuću vodu.

(135) There's central heating in the house. U kući ima centralno grejanje.

(136) There's running water in the room. U sobi ima tekuća voda.

there-sentences can have only one interpretation because of our extralinguistic knowledge, which tells us that "central heating" and "running water" are objects which usually form an integral part of the locative NP referent.

Pseudoexistential sentences. Structures with existential *there* play a big role in enriching the surface diversity of sentences of the same underlying form. There is a pronounced tendency in more recent linguistic theory to take as deep structure what might be called the cognitive meaning of sentences. The divergent surface realizations of the same referential content belong to the study of the communicative function of language. The following pairs of sentences (both in E and SC) are realizations of the same underlying structure (with differences in emphasis):

(137) a.	A policeman would like to speak to you.	Jedan policajac bi želeo sa vama da razgovara.
b.	There's a policeman who'd like to speak to you.	Ima jedan policajac koji bi želeo sa vama da razgovara.
(138) a.	I'd like to show you something.	Želeo bih da vam nešto pokažem.
b.	There's something I'd like to show you.	Ima nešto što bih želeo da vam pokažem.
(139) a.	In some cases this cannot happen.	U izvesnim slučajevima ovo se ne može dogoditi.
b.	There are some cases where this cannot happen.	Ima slučajeva gde se to ne može dogoditi.

As can be seen from the above examples, an indefinite referential NP in Subject, Object, or Locative position can be transformed into a seemingly predicational form, turning the rest of the sentence into an embedded (relative) clause. Choosing to give initial position to an indefinite referential NP by introducing it with existential *there* (in English) or IMA (in SC) presents a special option in the distribution of theme-rheme both in E and SC. In the general scheme of distribution of elements in a sentence according to their communicative value, the initial position is usually reserved for unmarked themes, such as definitely-determined noun phrases and pronouns, which tie up with the context (being anaphoric or deictic) and being known have a low communicative value. The final position is usually reserved for the rhematic element, which carries the core of information and therefore has high communicative value.[51]

(140) A TOWEL was on the floor.

(140) is felt as emphatic because we do not expect to find new information in a position where elements of lowest communicative value usually appear. In consequence the subject NP can be considered as a marked theme. By introducing an indefinite NP with there+is (in fact by letting it appear in its abstract logical form) two purposes are achieved from the point of view of communicative value of elements. There, being a phonologically weak form, has a very low communicative value.[52] As a preparatory element it seems to introduce new information, which usually does not appear as a theme.[53] On the other hand the indefinite noun phrase being shifted from initial position (a position usually reserved for elements of lowest communicative value) turns up in a quasi-predicative position and becomes a quasi-rheme.[54]

When discussing concepts such as theme-rheme it is of the greatest importance to take into account the constraints that the grammatical structure of the language imposes on the manipulation of elements. These constraints are much stricter in English, in which the linear sequence of elements plays a great role in showing their mutual relations, than in SC, where the same role is filled by inflectional devices. In English the order NP + VP is the usual linear sequence in statements. Any deviation from this sequence is felt as marked word order. For this reason in (141) the same referential content is expressed in English by giving new information in thematic position, the known setting as a consequence appearing in the position reserved for the rheme (which gives new information), while in SC, where fewer constraints are imposed on the sequence of elements, the known or the thematic appears in initial position and the rhematic in final position.[55]

(141) An old man was sitting *in the room.* — *U sobi* je sedeo jedan starac.

In the E version of (141) the theme is marked only as far as the communicative value of the indefinite NP (a man) is concerned. On the other hand the unmarked word order *NP+VP* is preserved, which makes the sentence unmarked from the point of view of the grammatical structure of the language. A balance between the two opposing factors is struck by introducing the initial indefinite NP in the sentence with *there*, an element of low communicative value, and putting the NP in a quasi-predicative position where elements of high communicative value are found, thereby turning it into a quasi-rheme.

(142) There was an old man (who was) sitting in the room.

The sentences that we have dubbed pseudoexistential, to distinguish them from existential sentences proper in which *there+be* is part of the existential predication, thematize an indefinite NP by moving it into initial position and introducing it with *there+be* while the rest of the sentence including the predicate gets relegated to the embedded (relative) clause.

(143) One can learn several things by correspondence. — Može se naučiti nekoliko stvari putem dopisivanja.

(144) There are several things one can learn by correspondence. Ima nekoliko stvari koje se mogu naučiti putem dopisivanja.

Closely related to these are those sentences in which there is used as a grammatical device for thematizing the verbal part of the predicate. The same referential meaning (with different emphasis) can be expressed by (145a) and (145b) and by (146a), (146b) and (146c).

(145) a. A day comes when we must face the truth.
b. There comes a day when we must face the truth.

(146) a. Several students arrived.
b. There are several students who arrived.
c. There arrived several students.

The fact that the subject slot must be filled in English owing to the paucity of concord markers in the verb makes it impossible to thematize the finite verb phrase in statements except in the cases where an intransitive verb takes an indefinite NP as grammatical subject, when there can be put in the subject slot. Serbo-Croatian, which has a highly developed verb paradigm with the person and number expressed in the morphological structure of the verb phrase, does not require the subject slot to be filled, and can thematize the finite verb phrase freely. Therefore the SC translation equivalents of (145b) and (146c) have the verb in initial position.

(145b. SC) Dodje dan kada moramo da se suočimo sa istinom.

(146c. SC) Stiglo je nekoliko studenata.

In present day English only intransitive verbs[56] and transitive verbs in the passive are thematized in this manner.[57] This construction marks the text as belonging to written narrative prose and is most often chosen when a "heavy" noun phrase functions as formal subject.

(147) There followed a discussion of Antony's evidence which Sir Nicholas, to his nephew's relief, kept short and to the point.

As can be seen from the examples that we have quoted and from those that will follow, the use of *there* to thematize the verbal phrase is only a matter of the surface structure distribution of elements rather than of any deep semantic consideration, the cognitive meaning of the sentences remaining the same.

(148) a. He'd like to clear up a few discrepancies.
b. There are a few discrepancies that he'd like to clear up.

(149) a It seems that there are a few discrepancies that he'd like to clear up.
b. There seem to be a few discrepancies that he'd like to clear up.

We should like to point out that the relative transformation cannot be freely applied to sentences which contain two or more of the so-called "indefinite" quantifiers (*some, somebody, everybody, all, many, etc.*) since the interpretation often depends on the linear sequence of these words.

(150) Everybody loves somebody.	Svako voli nekoga.

The change of word order entails a different interpretation of the quantifiers.

(151) Somebody is loved by everybody.	Nekoga svako voli.
(152) There is somebody whom everybody loves.	Ima neko koga svako voli.

The treatments of these effects is beyond the scope of this paper, since they are not directly related to existential constructions.[58]

Nominalization of events by means of existential predications. The paraphrase relation which holds between (153a) and (153b)

(153) a. A towel was on the floor.
b. There was a towel on the floor.

in existential-locative sentences does not exist in sentences of the type:

(154) a. There was a murder last night.
b. *A murder was last night.

The difference between the sentences (153), which could be called descriptive, and (154), which could be called nominalized events, is also manifest in two different kinds of questions that they answer. While (153) answers the question:

(155) What was there on the floor?

(154) answers the question:

(156) What happened last night?

The underlying structure of (154) could be represented as:

(157) Somebody murdered somebody last night.[59]

In English events are often stated in existential form, and the difference between there-sentences expressing descriptions and those expressing events entails different translation equivalents in SC. The translation equivalent of (154) is:

(154 SC) Sinoć se desilo (jedno) ubistvo. (A murder happened last night.)

We shall adduce a few more examples of there-sentences expressing events.

(158) There has never been a greater blunder.

Nikada nije počinjena veća greška. (A greater blunder has never been committed.)

(159)	When there is a sudden death we get called to the scene.	Kad nastupi iznenadna smrt nas pozovu na lice mesta. (When a sudden death occurs...)
(160)	There was a soft muffled sound.	Začu se blag prigušen zvuk. (A soft muffled sound was heard.)
(161)	There was a knock at the door.	Na vratima se začu kucanje. (A knock was heard...)

When viewed contrastively, English existential sentences can be said to be much more undifferentiated in their meaning than their SC equivalents and to cover a wider syntactic field than SC IMA-sentences. -

Nominalization of non-event predications by means of existential constructions.

When considering pairs such as:

(162)	a. There is no point in going there.	Nema svrhe ići tamo.
	b. It is pointless to go there.	
(163)	a. There is no possibility of testing this.	Nema mogućnosti da se ovo proveri.
	b. It is not possible to test this.	Nije moguće ovo proveriti.
(164)	a. There is no need for such a subject as philosophy.	Nema potrebe za predmetom kao što je filozofija.
	b. People don't need such a subject as philosophy.	Ljudima nije potreban predmet kao što je filozofija.
	c. Such a subject as philosophy is not needed.	Predmet kao što je filozofija nije potreban.

one is led to the conclusion that the different versions of each sentence have a common base at a deep level, especially if Bach's view is adopted that the three major categories (nouns, verbs, and adjectives) should be represented as one in the base component.[60] The synonymy is not always complete, since very often nominalized predicates (there+be+NP) express particular meanings with more precision than the corresponding verbal predications.

(165)	a. There is a probability that he'll come.	Postoji verovatnoća da će on doći.
	b. It is probable that he'll come.	On će verovatno doći.
(166)	a. There is evidence that he is guilty.	Ima dokaza da je on kriv.
	b. It is evident that he is guilty.	Očevidno je da je on kriv.

The a. sentences in (165) and (166) suggest that there is some probability or evidence which is not quite certain, while b. sentences suggest a much greater certainty with respect to what is stated.

(167)	a. There is some difference between them.	Izmedju njih ima razlike.
	b. They differ $\left\{\begin{array}{l}\text{to some extent}\\ \text{to a certain degree}\end{array}\right\}$	Oni se donekle razlikuju.

As verbal predicates would often require an adverbial element such as "somewhat", "to some degree", etc. to render the exact meaning, one may prefer the existential predication (there+be+NP), because "some" is much more usual with nouns than "somewhat" etc. with verbs and adjectives. Or, one may select the existential sentence because an adjectival word exists which can modify the noun but which has no semantically corresponding adverb which could modify the verb (or adjective)[61] underlying the noun.

(168)	a. There is a (some) possibility that he might come.	Postoji mogućnost da on dodje.
	b. *It is somewhat possible that he might come.	*Donekle je moguće da će on doći.

Sometimes the corresponding verb (or adjective) is lacking or has a different semantic interpretation so that the choice of existential predication is obligatory.

(169)	There is reason to believe that he is innocent.	Ima razloga da se veruje da je on nevin.

cannot be paraphrased by:

(170)	It is reasonable to believe that he is innocent.	Opravdano je verovati da je on nevin.

There+be+NP may be a device for turning relational predicates into surface structure arguments (with slight differences in meaning).

(171) a.	A and B correspond to each other.	A i B odgovaraju jedno drugom.
b.	There is a correspondence between A and B.	Postoji sličnost izmedju A i B.

(171b) suggests that the correspondence need not be interpreted as complete, while (171a) suggests that it is complete.

We could conclude from the above arguments that even if lexicalization forbids the use of a synonymous verb (or adjective) the fact remains that in many sentences the NP introduced by existential *there* in E and existential IMA in SC is not an argument but a disguised relational concept and that at a very deep level such noun phrases are abstract verbs.

Existential THERE introducing definite noun phrases. Earlier in this paper we stated that existential *there* introduces noun phrases which have the features [-definite, +referential]. That the NP introduced by the existential *there* must have the feature [-definite] holds good only for those existential sentences that introduce new information.[62] Though the function of existential *there* is to introduce new objects into the focus of attention, *there*-sentences introducing definite NPs are not infrequent. It is possible, usually for purposes of enumeration[63], for *there* to introduce a definite NP in order to recall a known object and to bring it into the focus of attention[64], which is not the same as introducing new information by means of an indefinite referential NP. While (172) is unacceptable as an existential sentence of locative type:

(172) *There's the book on the table.

(173), (174), (175) and (176) are acceptable as *there* introduces definite NPs which recall known objects for purposes of enumeration.

(173) To begin with, there is *the odd circumstance* of the rye found in Mr. Brown's pocket. Then there is *the curious circumstance* of the blackbirds.

(174) Added to this statement of hers, there had been *the further statement* that she had heard someone moving upstairs.

(175)	a. What is there in that drawer?	Šta ima u toj fijoci?
	b. There's John's camera, your shaver, and my scissors.	Ima Jovanov fotografski aparat, tvoj aparat za brijanje i moje makaze.
(176)	a. Who was there at the party?	Koga je bilo na prijemu?
	b. There was myself and John and his wife.	Bili smo ja i Jovan i njegova žena.

In order to elucidate better the difference between definite and indefinite NPs in *there*-sentences we shall extend (175b) and (176b) with indefinite NPs which introduce new information.

(177)	There's John's camera, your shaver, and *an old purse*.	Ima Jovanov fot. aparat, tvoj aparat za brijanje i *jedan stari novčanik*.
(178)	There was myself, John and his wife, and *a funny little man with a freckled face.*	Bili smo ja, Jovan i njegova žena i *jedan smešan mali čovek pegava lica.*

As can be seen from the translation equivalent of (176), the form bilo je is used in (a) with the singular form koga, but is not used in (b), where proper names and singular forms of common nouns in the nominative require concord forms of the verb biti (=be). It is interesting to note that the negative form nije bilo (=there wasn't) can introduce proper names as well as common nouns both in the singular and the plural, since the negative forms of existential quantifiers in SC (nema and nije bilo) require the NPs to be inflected for the genitive.

(179) a. Koga je bilo na prijemu? (Who was there at the party?)
b. Bili smo Jovan i ja, ali nije bilo Marije i njene sestre. (*John and myself were, but there was no Mary and her sister.)

The grammatically acceptable E equivalent of (179b) would read:

(179b. E) There was John and myself, but Mary and her sister weren't there.[65]

Concluding remarks. This paper has considered the sources of existential sentences, the surface structure varieties of other sentences with which they are in paraphrase relation, and the SC equivalents of those structures. Our proposal has been that existential there is generated at a very deep level with every indefinite-referential NP $\left[(\exists x)\ f(x)\right]$. We have also seen that there+be+NP rarely constitutes predication in itself and if it does, such predications are in some way context bound, since they appear under contrastive stress (There ARE fairies. THERE ARE white monkeys.) Although most of the previous studies have treated the existential-locative type, we have found that the study cannot be confined to this most typical type of existential sentence, as English makes wide use of the structural device there+be+NP in every sort of discourse irrespective of style and register.

Its ubiquity is especially conspicuous when studied contrastively.[66] The SC formal correspondent of *there+is* - *ima* - often alternates with *postojati* "exist" in general existential statements, *postojati* being in wider use in SC than *exist* in English. *Nalaziti se* "be located" alternates with *ima* in the existential-locative type of sentence. Various equivalents are found in existential predications expressing events, depending on the lexical content of the NP following *there+be*: a few of them are *desiti se* "happen, oocur" (There has been an accident.), *čuti se* "be heard" (There was a knock at the door.), *nastati* "come into existence, arise, ensue" (There was a pause.), etc. *There+be+NP* plays a major role in putting sentences into a form with the agent eliminated. Where the agent is known from the previous context[67], *there+be+NP* vies with passive constructions as a means for leaving it out.

(180) a. He hadn't had time to verify that
at the restaurant.
b. There hadn't been time to verify
that at the restaurant.

(181) a. She made no effort now to maintain a pose.
b. No effort was made now to maintain a pose.
c. There was no effort made now to maintain a pose.

The very fact that the same referential content turns up in a different distribution of elements in the surface structure leads us to agree with Kirkwood that "Any investigation of the different sequences of elements available in a language should not only consider what is grammatically possible but also what motivates the choice between alternatives in the communicative process."[68]

NOTES

1. Jespersen (1949, 107).

2. Allan (1971, 1-3).

3. Jespersen (1949, 107).

4. In short answers, question-tags and similar constructions with deleted constituents, if the subject NP is [+N, -Pro] it must be pronominalized, while *there* behaves as a personal pronoun in this situation.

   John has breakfast at eight, doesn't *he* ?
   There is a TV in your room, isn't *there* ?

5. Kiparsky and Kiparsky (1970, 144).

6. Chomsky (1970, 208, 220).

7. Perlmutter (1970, 108 and 116). See also: Jacobs and Rosenbaum (1968, 85).

8. Fillmore (1969, 370). John Lyons (1967, 390) also considers that existential *there* in many European languages is an originally deictic particle (Eng. *there*, Fr. *y*, Ital. *ci*, etc.) and that all existential sentences "are implicitly *locative*".

9. Bach (1968, 112).

10. This does not hold good for a predicate nominal such as *an anthropologist* in the following example:

    He is an anthropologist.

    as the quoted noun does not have in its structural index the feature [+ referential]. "The peculiar properties of predicate nominals in sentences like "He is an anthropologist" are sufficient to establish that these elements are not noun phrases." (Bach, 1968, 104).

11. Bierwisch (1970, 35): "Indefinite quantifications like *many*, *few*, *some* are similar to numerals in many respects, the main difference being that they provide no absolute quantification, but one which is relative to a certain norm."

11a. It is quite natural that anaphoric elements such as *he*, *she*, *it*, *the*, should by definition be excluded from existential predications since they do not introduce new information. See: Padučeva (1970).

12. We shall discuss later existential sentences in which the use of such referential devices is permissible.

13. In an earlier paper (Mihailović, 1970), following Smith (1964) and Karttunen (1968), we called *specific* what we now call *referential*. Heringer (1969, 89) states that the distinction between specific (=referential) and non-specific indefinite noun phrases boils down to the distinction between those noun phrases which carry with them a presupposition of existence of a referent and those which do not.

14. The ambiguity of indefinite NPs in connection with the feature *referential* is due to the fact that common nouns are multireferential and that the indefinite article *a* is not uniquely referential. For an exhaustive treatment of referential modes of NPs in English see: Gough, Chiaraviglio (1970).

15. Quine (1952, 194): "These words (= 'something', 'nothing', 'everything') .... refer to entities generally, with a kind of studied ambiguity peculiar to themselves. These quantificational words or bound variables are of course a basic part of language, and their meaningfulness, at least in context, is not to be challenged. But their meaningfulness in no way presupposes..... specifically preassigned objects."

16. The generic quantifier which in the plural acquires $\emptyset$ form is in essence a universal quantifier:

    for any *x*, if *x* is a snake, then *x* is non-poisonous.

    For a discussion of universal quantifiers (*all, every, each, any*) and their relation to generic and specifying reference see: Bierwisch (1970, 36).

17. Vendler (1962, 158): " explicit questions of existence, like

    Are there any pigs in the pen ?

    take full advantage of the existential neutrality of "any" ".

18. That is why we would not accept Allan's (1971, 2) example:

    There are ghosts.

    as a discourse opening sentence even with the proviso that the locative *in the universe* is understood.

19. Here the sentence stress falls on the last word, which is the center of information. The speaker *A* is not making a general existential statement, since he probably believes in ghosts and is stating that he might come across one if he goes out. Since his belief is not shared by speaker *B*, he is bound to make a general existential statement:

    There ARE ghosts.

    in which case the sentence stress falls on a closed system item. - I am indebted to Wayles Browne for example (51).

20. Though the deleted elements in our examples do not meet the requirements of deletion rules as stated by Katz and Postal (1964, 79-81), we do not hesitate to consider them as being recoverable from the context.

21. We shall discuss examples such as (65) further in this paper.

22. Lyons (1968, 390).

23. Kahn (1966, 257).

24. Long (1961, 359).

25. See: Ridjanović (1970, 85).

26. Allan (1971, 6) also notes that despite the synonymy of the examples:

    (16) a. A strange man is outside.

    b. There$_1$ is a strange man outside.

    " (16 a) is more dramatic and impressive than (16b)."

27. Kuno (1971) in his paper "Position of Locatives in Existential Sentences" pleads for the thesis that in many languages including Japanese and English the basic word order in existential sentences is:

    $\text{Locative}+\text{NP}_{indef}+\text{V}_{exist}$

    We do not see that much is gained by this thesis. Whether the sequence:

    Over the piano there was a picture.

    or:

    There was a picture over the piano.

    is chosen, is not decided within sentence grammar, but within discourse grammar, as we have already noted.

28. Quirk (1963, 168-169).

29. See: Mihailović (1968).

30. We shall not deal with dialectal variations in the case forms following IMA.

31. Similarly, future: *biće* or *će biti*, imperfect: *beše* or *bejaše*, potential: *bilo bi*, the special present form in subordinate clauses: *bude*, etc.

32. According to the informants speaking the Western variant of Serbo-Croatian, the forms of the verbs *biti* (be), *postojati* (exist) and *nalaziti se* (be located) are used much more frequently in the Western variant than is obvious from the examples in this paper. Thus certain sentences with *ima* (which belong to the Eastern variant of SC) are only marginally acceptable to speakers of the Western variant.

33. Lyons (1967); Lehiste (1969); Christie (1970); Boadi (1971).

34. Durbin and Durbin (1969, 117) state that verbs corresponding to English *be* and *have* are not universal and in note 7) they hypothesize that "Proto-Indo-European had neither a verb for *to be* nor *to have* in spite of the fact that the concepts of EXISTENCE, COEXISTENCE and PARTITIVE were recognized and handled in various ways."

35. Bach (1967).

36. Lyons (1967, 390).

37. Hetzron (1970).

38. We should like to mention that there are other views as to the status of the verb *be*. Ross (1969, 355) claims that *be* is a true verb, just like the verbs *try, believe, want, etc.*, that it is present in the deep structure, that it takes an abstract object, and that it should be marked $\begin{bmatrix}+V\\-Adj\end{bmatrix}$ in the lexicon.

39. Lyons (1968, 396-397).

40. Fillmore (1968, 47).

41. Of course, there are exceptions:

    My mother has the car today.

42. This is not the deep structure presentation of the sentence, since her room is derived from Mary has a room by pronominalization.

43. The rules stating conditions under which the possessive can be deleted in SC have been given in Mihailović (1971).

44. Such rules would shed more light on the underlying structure of possessive constructions and suggest that Mr. Smith's native town may not be derived from Mr. Smith has a native town.

45. Fillmore (1968, 83).

46. Ross (1967, 440).

47. Lyons (1968, 395) points out that there are languages (e.g. Gaelic, Swahili, Hindi) in which the "possessive" constructions like the Russian:

U menja kniga ('at' + 'me' + 'book')

are structurally identical with a locative. We might add an SC example with the possessive construction where the verb be need not turn up in the surface structure.

Milica ima duge trepavice. (Milica has long eyelashes.)
U Milice (su) duge trepavice. (at + Milica +(are) long+ eyelashes.)

For additional examples of the possessive use of u + NP^{gen} see Stevanović (1957, 354) and Brabec, Hraste, Živković (1968, 227).

48. Ross (1967); Lyons (1967); Lyons (1968); Fillmore (1968); Fillmore (1969).

49. I am grateful to Wayles Browne for drawing my attention to this.

50. We have not enough evidence yet, but it seems to us that the pronominalized copy of the subject NP in the locative phrase is optional in cases where the possessed object is an integral part of the NP referent.

The table has a lamp.

Without the locative phrase "on it", this sentence suggests that the lamp is built into the table, whereas:

The table has a lamp on it.

suggests that the lamp is standing on the table.

The house has a stone façade on it.

would suggest that the façade is somehow stuck on the wall of the house. That is why the following sentence is unacceptable without a locative phrase:

* London has a lot of non-Londoners.

I am indebted to Wayles Browne for the last example.

51. For a more exhaustive discussion of the concepts theme-rheme (topic-comment) see: Firbas (1966a); Firbas (1966b); Halliday (1967); Halliday (1970); Hass (1970); Kirkwood (1969); Kiefer (1970); Lyons (1968), and other authors cited therein.

52. Firbas (1966a, 275).

53. Jespersen (1955, 154) gives the right interpretation for a wrong reason: "By putting the weak *there* in the place usually occupied by the subject we as it were hide away the subject and reduce it to an inferior position, because it is indefinite."

54. Kirkwood (1969, 102): "One might argue that the *there*-introducer allows the nondefinite noun functioning as subject to move into a position with high communicative value."

55. As SC has no explicit articles which mark a noun phrase as being definite or non-definite, an NP in initial position is usually interpreted as definite (introducing a known, thematic element), and an NP in final position as indefinite (introducing new information).

    Žena udje u sobu. (The woman came into the room.)
    U sobu udje žena. (A woman came into the room.)

    This is not an inflexible rule since much depends on the lexical, grammatical and non-verbal context. For instance, on seeing a boy we have been expecting, we could say:

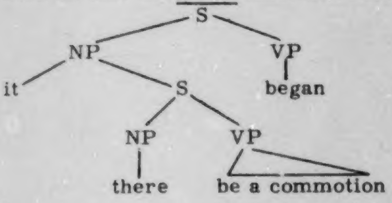
    Dolazi dečak. (The boy is coming. Here comes the boy.)

56. Jespersen (1949, 112): "Transitive vbs with objects formerly were not at all rare with *there*."

57. Perlmutter (1970, 108-109) argues that *there* is not present in the deep structure of sentences. A sentence such as:

    There began to be a commotion.

    is generated so that the *there*-insertion rule applies in the embedded sentence:



When *there* is substituted for *it* on the second cycle

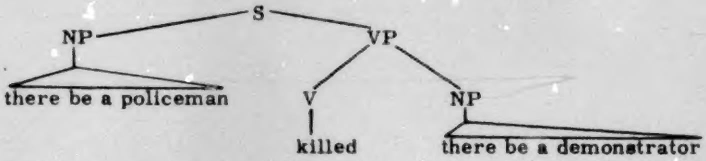
    There began to be a commotion.

is obtained. The fact that *there* cannot appear as formal subject with transitive verbs, but can appear with transitive verbs in the passive when *be* is introduced into the verb phrase, Perlmutter (p. 116) says, serves as a further argument that *there* does not appear in the deep structure, but is introduced after the passive transformation. He adduces the following examples in support of his arguments:

    A policeman killed a demonstrator.
    *There killed a policeman a demonstrator.
    A demonstrator was killed by a policeman.
    There was a demonstrator killed by a policeman.

(See also Chomsky (1970, 220) for a similar view.)

We believe that *there* is not introduced with verbs but is part of every indefinite-referential noun phrase at an abstract level.



In the later transformational history of the sentence, which NP (if any) turns up with *there* depends entirely on the type of transformation that is applied.

58. For a discussion, see Kuno (1971).

59. This is an oversimplified representation of the underlying structure, as verbs such as *murder* and *kill* have the semantic feature *Caus(ative)* and such predicates are decomposable into

    cause [become [not [alive]]] or: Cause NP [NP be dead]

    (This also holds good for the second diagram in footnote 57.)

60. Bach (1968, 115) suggests that this category might be called "contentives" (which would be like the predicates of logic or "the full words of traditional Chinese grammar".)
    See also: Quine (1960, 96).

61. Arguments for treating verbs and adjectives as members of the same lexical category have been put forth by Lakoff (1965).

62. In fact, introducing an indefinite/referential NP should be understood as "selecting a particular fraction of the universe which has not been referred to previously." (Bierwisch 1970, 32).

63. Live (1967, 40).

64. Allan (1971, 13): "When the existential operator concatenates with the definite article the referent of the noun-phrase is 'known' but not 'given'."

65. We should like to adduce a few more examples of this special use of the forms *nema+NP*^{gen} and *nije bilo+NP*^{gen}

    a. Nema mog novog kaputa. (*There is no my new coat.)

    The literal translation being unacceptable, the meaning in E could be rendered in the following way:

    (a. E) My new coat's missing(gone).
    b. Nema Jovana kod kuće. (*There isn't John at home.)
    c. Nema ga kod kuće. (*There's no him at home.)
    d. Jovana nije bilo kod kuće. (*There was no John at home.)
    e. Nije ga bilo kod kuće. (*There was no him at home.)

The E equivalents would read:

(b. E) John isn't at home.
(c. E) He isn't at home.
(d. E) John wasn't at home.
(e. E) He wasn't at home.
f. Jovana nema. (*There isn't John.)

(f.) can be interpreted in several ways according to the context:
John is dead. John is absent. John is gone. John isn't here.

g. Kako je samo mirno gledala u mene, kao da me nema, kao da nikada nismo vodili onaj ružni razgovor u staroj kući. [Selimović (1967, 309)]

(*How could she look at me so placidly, as if there was no me, as if we had never had that ugly talk in the old house.)

The clause "kao da me nema" could be rendered into English:
as if I didn't exist
as if I weren't there

66. See: Kirkwood (1969, 102) for the variety of German translation equivalents of English there-sentences.

67. None of these phenomena can be dealt with within sentence grammar. They require longer stretches of discourse. Although strict formalization of grammatical phenomena is difficult to achieve once the boundaries of sentences are crossed we subscribe to Levin's (1971, 54) opinion that "it appears that one's linguistic ability is in general more extensive than what is reflected in the state of grammatical analysis at any given time. Particularly is this advantage manifested when we consider that our interpretive strategies are not limited to exercise within the bounds of the sentence, but that we can and do exercise them across sentence boundaries, throughout entire texts, in fact."

68. Kirkwood (1969, 106).

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A REINTERPRETATION OF VERBAL ASPECT IN SERBO-CROATIAN[1]

1.0 INTRODUCTION. The one point about Slavic verbal aspect on which there is almost universal agreement is that there are two major aspectual categories, perfective and imperfective, which affect, or are affected by, morphology, syntax, and semantics. The major point of disagreement seems to be the meaning, the 'nature' of the contrast between the two categories. Apart from this, a number of other points continue to arouse discussion, either because they stem from the basic disagreement on the nature of the contrast, or because they touch on related phenomena that have not yet been sufficiently investigated, such as the number and nature of 'subaspects' of the two major categories, the syntactic purport of aspect, and relations of modifications between individual aspects and other constituents of the sentence. It is to these problems that the present paper addresses itself. Our major concern will be with the syntactic implications of aspect in Serbo-Croatian (henceforth SC), and the 'reinterpretation', in fact, emerges from an investigation of the syntax of verbal aspect in that language. It is expected that the present reinterpretation would, in essence, be applicable to other Slavic languages as well.

2.0 A CRITICAL LOOK AT EXTANT VIEWS OF THE MEANING OF PERFECTIVE ASPECT. Authors have generally devoted a greater amount of attention to the meaning of perfective aspect taking it to be the marked member of the binary opposition and assuming that the meaning of the imperfective, if unspecified, is manifested in the absence of, or indifference to, those features that characterize the perfective. This is typical of the influential binary view as expounded by Jakobson. Perfective aspect has been said to mean:[2] (1) completed action (Miklosich, 1863-79, p. 274; Jakobson, 1932, p. 76 and 1939, pp. 145ff; Avanesov and Sidorov, 1943, pp. 166-7), (2) term or limit in the action (Šahmatov, 1941, p. 472), (3) action as a point (Peškovskij, 1957, pp. 104-11; Saussure, 1967, p. 263; Mazon, 1914, pp. 239-40), (4) limitation in time (Fortunatov, according to Ferrell, 1951, p. 107; Koschmieder, 1929, p. 35; Sørensen, 1949, passim), (5) result of action (Potebnja, acc. to Ferrell, 1951, p. 107; Karcevski, 1927, pp. 98-100).

Some of the major criticisms that have been made against these views are as follows. (1) does not account for the perfectives that indicate the beginning of an action; the argument that such verbs actually mark the end of the beginning of an action has been objected to as circular. (2) is considered too loose and more aktionsart- than aspect- oriented. Though Šahmatov gives a lengthy explanation of what he means by a term or limit, the impression is one of failure to catch the common denominator of the meaning of all kinds of perfective verbs. Therefore, however one interprets his main features of the meaning of perfective aspect, they seem to overlap with the meaning of the imperfective. Although (3) has been upheld, partly or wholly, by a large number of distinguished scholars, no one has yet been able to meet the criticism that some 'punctual' verbs are modified by time adverbials that indicate an action lasting for a period of time. The verbs usually quoted to support this criticism are of the class exemplified by posjesti 'sit for a while'.

(4) is too general to be acceptable, as it is quite possible to interpret the meaning of 'limitation' in such a way as to include many uses of imperfective verbs. (5) does not cover perfectives such as obradovati se 'rejoice on one occasion' which can by no means be interpreted as a result of what is denoted by its imperfective counterpart radovati se 'rejoice'.

Thus, most extant views of the meaning of verbal aspect in Slavic languages are inadequate in one of two ways: they are either not comprehensive enough (1, 3, and 5), or too vague and broad (2 and 4). Furthermore, though the semantic and the syntactic properties of the two aspects are closely interrelated, they are far from being identical. Nevertheless, the traditional approach has tended to confuse the difference and to emphasize the common semantic elements of perfective verbs taken in isolation to the detriment of the common properties in their syntactic behavior. The best evidence of this emphasis is found in the fact that the usually expounded meaning of the perfective aspect is the meaning of 'completed action', which happens to be an outstanding semantic feature of a statistically predominant category of verbs with the so-called perfective aspect. The emphasis is also reflected in the relative paucity, in the traditional works, of examples that would illustrate the use of individual aspects in sentences, i.e. in the lack of adequate syntactic evidence.

3.0 DEFINING ASPECT. Before presenting the case for a different, syntactically based approach to aspect in SC, we would like to specify the general-linguistic notion of verbal aspect that will be used here.

The most common characterization of verbal aspect in general linguistic terms is that which describes it as having to do with the completion versus incompletion or momentariness versus durativeness of the action or state denoted by the verb. When applied to other than Slavic languages, this characterization has often been broadened to include other temporal features of verbal actions and states (apart from those related to tense), such as their segmentative or iterative nature. Thus, Whorf talks about nine aspects in the Hopi language (Whorf, 1965, pp. 51-6), while Jespersen in his Philosophy of Grammar (1924, pp. 287-8) gives a list of seven kinds of grammatical phenomena to be subsumed under the notion of verbal aspect. Still, all those phenomena are related, in one way or another, to temporal features of verbs and verb phrases, other than those affecting time reference in relation to the time of utterance. Hockett (1958, p. 237) has a similar view of aspect, and gives what I find to be an extremely valuable and concise definition of this grammatical category: "Aspects have to do, not with the location of an event in time, but with its temporal distribution or contour." The special value of his definition is in providing a convenient term, temporal contour, which will be used as a basic tool in our investigation of aspect in SC and which we will further specify as the kind of temporal dimension permanently associated with a particular verb or group of verbs. For example, the verb vidjeti 'see' has a point-like temporal contour, vidjati 'see occasionally, from time to time' has a contour which is best described symbolically as consisting of a series of dots, while gledati 'look' has a contour which can be represented as a line, i.e. a series of contiguous points 'flowing' along the time line. Any grammatical phenomena, then, in which the temporal contour of a verb is directly involved would be subsumed under the notion of verbal aspect.

4.0 'TOTIVE' AND 'NON-TOTIVE' INSTEAD OF PERFECTIVE AND IMPERFECTIVE. It is here proposed that of the views quoted in section 2.0, that which interprets the perfective aspect as indicating an action as a point in time can best be used as a basis in elucidating the syntactic nature of the major aspectual contrast in SC. Let us first consider the objection usually raised against this view, namely that some perfective, or 'punctual', verbs can be used with an adverbial of time showing that the action actually lasted for a period of time. This is illustrated by the following examples:

1 Posjela je jedan sat i otišla 'She sat for an hour and then left.'

2 Prespavao je cijeli dan 'He slept away the whole day'

3 Prošlu godinu je proveo u Kini 'He spent last year in China'

In these sentences the adverbials *jedan sat* 'one hour', *cijeli dan* 'the whole day', and *prošlu godinu* 'last year' denote limited, well-defined periods of time which are viewed as indivisible, and thus resemble 'points' of time. In SC such periods of time are expressed by a noun phrase in the accusative case. Indeed, the time period expressed by an accusative NP can never be divided for the purpose of reference to one of its segments. This is proven by the unacceptability of

4* Vidjela ga je prošlu nedelju 'She saw him last week'

The ungrammaticality of this expression results from the fact that the temporal reference of *vidjeti* 'see' can only be a point of time, which cannot be 'extracted' from the indivisible longer-than-point period of time expressed by the accusative NP *prošlu nedelju*. The same idea can be expressed grammatically by

5 Vidjela ga je prošle nedelje

where a period of time is expressed by a genitive NP, which *is* divisible into segments to be used for temporal reference in the same sentence. More evidence in support of the indivisibility of time periods expressed by accusative NP's and the divisibility (or segmentability) of those expressed by genitive NP's comes from the expressions

6 *Prošlu godinu ga je često vidjala
7 Prošle godine ga je često vidjala

'She used to see him often last year'

The iterative verb *vidjati* demands a number of time points for its temporal reference, which are 'extractable' from the period expressed by the genitive NP, but not from the indivisible one referred to by the accusative NP.

We thus find that one common denominator of the so-called perfective verbs is that the adverbial of time which modifies them must denote a limited and indivisible time period. The 'imperfective' verbs, on the other hand, behave indifferently to this particular constraint as shown by the acceptability of both

8 Prošle nedelje je radila na blagajni
and 9 Prošlu nedelju je radila na blagajni

'Last week she worked as a cashier'

where the time adverbial is expressed by a genitive as well as an accusative NP. Therefore, if we take 'perfective' to be the *marked* aspectual category and assign to perfective verbs the feature [+perfective] in the lexicon of a generative grammar of SC, then the verbs of 'imperfective' aspect are not [-perfective], but [±perfective], which is in accordance with Jakobson's view of binary features outside the realm of phonology: they are characteristically present in one category, but either present in, or absent from, the 'opposite' category.

The fact that a time adverbial modifying a perfective verb has to stand for an indivisible period of time may just be a manifestation of the fact that the temporal contour of perfective verbs is of an indivisible nature. This is obvious in the case of such verbs as *vidjeti*, whose contour is representable by a mathematical point, indivisible by definition, but is still only a hypothesis until we prove that the temporal contour of such verbs as *posjesti*, which imply extended periods of time, is also indivisible in the grammatical sense discussed above.

This hypothesis is confirmed by the following reactance frame:[3]

10 Dok je ________ s prijateljicama, sjetila se da je on čeka
'While she ________ with friends, she remembered that he was waiting for her'

(In this, as in all other examples, *dok* 'while' is to be interpreted in its temporal sense.)

The empty slot in (10), which we will call a *reactance slot*, can only be filled with an imperfective verb, say *sjedjeti* 'be sitting', while the use of a perfective verb, though it may be one that is capable of extended time reference such as *posjesti*, renders (10) ungrammatical. The conclusion that we must make is the following: (10) being syntactically structured in such a way that the time reference of the verb *sjetiti se* 'remember' in the main clause must be one of the points extractable from the period of time referred to by the verb of the subordinate clause, the use of a perfective verb in the latter clause makes (10) ungrammatical, because *the temporal contour of a perfective is indivisible*, such that no part of it can be used for temporal reference by another verb in the same sentence. This does not mean that the contour of a perfective, *in its totality*, may not be used for temporal reference by another verb. In the sentence

11 Dok smo mi posjeli u kući, 'While we sat in the house,
on se pozdravio sa svojima he said good-bye to his folks'

the time taken by the verbal action in the main clause is meant to coincide with that taken by the verb of the subordinate clause.

There are two traditionally recognized constraints on the use of perfective verbs in SC, as in other Slavic languages, which can also be explained by the indivisibility of the temporal contour associated with them. One has to do with the use of the present tense, the other stipulates that perfectives cannot be used as complements of the verb *početi* 'begin' and *prestati* 'cease'.

Perfective verbs cannot be used in answer to the question 'What are you doing now?', which, in fact, means that the present tense of perfective verbs may not be used in a main clause to refer to a single instance of an action which is 'present' in relation to the moment of utterance.

Many languages are known to contain sentences which are related to the time of their utterance in ways that can sometimes have important grammatical consequences. The numerous languages with no overt copula in sentences with adjectival and nominal predicates are a case in point. Russian sentences such as *On student* 'He is a student', *Ona vysokaja* 'She is tall' say nothing about the time of which the propositions are to be taken as true, yet every fluent speaker of Russian knows that that time is the time or, more precisely, the moment of utterance. This knowledge is part of the speaker's linguistic competence and has to be accounted for in an adequate grammar of the language. This same 'moment of utterance' seems to be involved in the constraints on the use of perfective aspect in Slavic languages: if the action denoted by a perfective verb takes place within an indivisible point or span on the time line, then no other point, not even that implied by the moment of utterance, can be 'inserted' into the indivisible point or span of time filled by the action of the perfective verb. This suggests that the moment of utterance might be an obligatory feature to be posited in the deep structure of Slavic languages. Ross (1970) has found valid syntactic evidence for postulating a meaning that roughly corresponds to *I say to you* in the deep structure of English declarative sentences. The present analysis of Slavic verbal aspect suggests that we may have to postulate a supplement to this deep structure meaning which would approximate the meaning of *at this moment* or *at this point in time*; this is only vaguely implicit in Ross's *I say to you* since the English present tense of *say* has a variety of temporal meanings, of which only one, that specified by the adverbial *at this moment*, applies in this case.[4]

The other traditionally recognized constraint, the one stipulating that perfectives cannot be used as complements of the verbs meaning 'begin' or 'cease', can be explained, within the present framework, on the basis of the fact that these two verbs relate temporally to the initial and the final point respectively of the contour of the verb serving as their complement. Since no single point of the temporal contour of perfective verbs, whether it be initial, medial, or final, can be 'taken out' for temporal reference, they cannot function as complements of these two verbs.

We can now make the following conclusion. The study of the syntactic constraints on the use of the so-called perfective and imperfective verbs in SC reveals that the major feature of the opposition between them is not the completion versus the incompletion of the action designated by the verb[5], but rather the indivisibility versus the divisibility of the temporal dimension permanently associated with the action. Another useful way of expressing this feature is to say that the grammar of SC treats so-called perfective verbs as expressing an action or a state in its totality, no segment of the totality being separable for any grammatical purpose.

The discussion so far reveals the inadequacy of the traditional terms 'perfective' and 'imperfective' to designate the syntactic nature of the opposition between the two major aspectual categories in Slavic languages. Since all the syntactic phenomena directly related to this opposition may be traced to the indivisibility of the temporal dimension associated with one class of verbs, the unbreakable totality with which the action denoted by these verbs is (tacitly) viewed by a native speaker-hearer, it is proposed here that this class of verbs, traditionally known as perfective, be called totive. (This term has been used by Grubor, 1953, to denote a subclass of 'perfective' verbs.) The verbs which do not display all the syntactic characteristics of totives would then conveniently be termed non-totive. In the lexicon of a generative grammar the former class would be marked by the feature $\left[+\text{totive}\right]$, the latter by $\left[\pm\ \text{totive}\right]$ (cf. discussion of ex. (8) and (9)).

4.1. 'CURSIVE' AND 'STATIVE' AS CATEGORIES OF NON-TOTIVE VERBS. Non-totive verbs are not all aspectually alike. Some non-totives, those typically denoting 'actions' or 'processes', have a temporal contour which is perhaps best described as 'dynamic', representable as it is by a series of points ordered, or 'flowing', along the time line. Another class of non-totives, which typically designate states, properties, and relations, have a temporal contour which is so 'static' that it can barely be used for grammatical or semantic manipulation. We will call the former class of verbs cursive (again using an earlier term in a somewhat modified way; and the latter stative (which, though very similar to, is not completely coextensive with Lakoff's use of the term in Lakoff, 1966). The difference between the two categories is seen in the following examples, which also serve as reactances showing the grammatical nature of the categories:

- Cursive:

12	Dok je radio kao novinar, posjetio je Prag	'While he worked as a journalist, he visited Prague'
13	Stanovali su u istoj kući od kad su prvi put došli u Sarajevo sve dok nisu otišli iz njega	'They lived in the same house from the time they first came to Sarajevo until they left'
14	Juče od 3 do 7, dok smo mi igrali karata, ona je samo sjedjela i šutjela	'From 3 to 7 yesterday, while we were playing cards, she just sat and kept quiet'
15	Cijelo vrijeme dok smo mi obilazili njegov klub, Jovan nam je pričao o njihovim aktivnostima	'All the time while we were visiting his club, John was telling us about their activities'
16	Osjeća bol u stomaku već od podne	'He has been feeling pain in the stomach since noon'
17	Osjećao je bol u stomaku sve dok nije popio lijek	'He felt pain in the stomach up until he took his medicine'
18	Kad god razmišlja o tome, osjeća potrebu da nešto preduzme	'Whenever he thinks about it, he feels the need to do something'

- **Stative:**

19	* Dok je vjerovao u pravdu, otišao je da razgovara sa šefom	*'While he believed in justice, he went to talk to his boss'
20	? *Čikago se nalazio na obali jezera Mičigen od kad je osnovan pa sve dok nije bio zbrisan[6]	? *'Chicago was situated on the shore of lake Michigan from the time it was founded until it was wiped out'
21	? *Juče od 3 do 4 visina istokračnog trougla odnosila se prema njegovoj stranici kao $\sqrt{3}$: 2	? *'From 3 to 4 yesterday the ratio of the altitude of an equilateral triangle to its side was $\sqrt{3}$: 2'
22	*Cijelo vrijeme dok smo mi predstavljali protivnički klub, Jovan nas je uvjeravao u nadmoćnost svog tima	*'All the time that we represented the opposition team, John convinced us of the superiority of his own team'
23	? *Ruža lijepo miriše od podne	? *'A rose has smelt good since noon'
24	*Kit je spadao u sisavce sve dok juče nije zaplivao	*'The whale belonged to the class of mammals until he started swimming yesterday'
25	*Kad god zna engleski, Zoran se ustručava da govori	*'Whenever he knows English, Zoran hesitates to speak it'

As we see from sentences (12) through (18), the temporal contour of cursives allows them to enter into various syntactic relations involving: a medial point of the contour, as in (12), the initial and the final points, as in (13), the entire contour (14 & 15), only the initial or only the final point (16 & 17), and a number of segments of the contour, as in (18). The dynamic contour of cursives is seen to be extremely flexible when it comes to its uses in the syntax of the language[7]. This is far from being true of the temporal contours of aspectually stative verbs, as illustrated by the syntactically parallel but unacceptable expressions (19) through (25), in which the temporal contour of statives is forced to assume the same roles played by the cursives of (12) through (18). Before making any final statements about these two aspectual categories, however, we have to discuss briefly (20), (21), and (23) which have been marked as only 'questionably' ungrammatical.

(20) is acceptable on the premise that cities may change their location. If we reject that premise and treat the verb *nalaziti se* 'be situated' as denoting a permanent property of the entity expressed by the subject of the sentence (which is our intended meaning), the whole expression becomes very peculiar (unacceptable?) because of the inaptness of its second part. Under the intended interpretation (21) is unacceptable because it sets strict temporal limits on the validity of a proposition which we take to be universally true. An inherently permanent relationship is presented as temporary, which makes the sentence objectionable. There *is* an interpretation, however far-fetched, which makes the sentence less odd: we can imagine a geometry teacher who wants to be reminded of what he said - during yesterday's class between 3 and 4 - the ratio in question was, and a somewhat audacious and humor-prone student who says that it was $\sqrt{3}$: 2 during the class between 3 and 4, implying that before and after that class the ratio, according to the teacher, might be different. It appears that such an interpretation is made possible by the assignment of a special illocutionary force to the sentence, the force of what might be called 'indirect statement'. In the case of sentence (21) under the interpretation just described, this would mean that the speaker intends the statement to be a quotation of what the teacher said during yesterday's class between three and four. This is another indication of the relevance of Austin's theory of illocutionary acts to grammar, especially to deep grammar.[8]

(23) is marginally acceptable only if the subject noun is taken in a non-generic

sense. In the intended, generic sense, however, (23) is unacceptable.

It is possible to say that the unacceptability of (19) through (25) can be explained on the basis of the semantics of each expression taken as a whole, even without considering the aspectual nature of the verb. Thus,(20) can be proclaimed unacceptable on the basis of the fact that cities do not undergo radical changes of location; (21) on the basis of the permanence of the mathematical relations holding between the altitute and the side of an equilateral triangle; (22) because 'thinking that' + proposition cannot be limited to a short span of time occupied by a single instance of another action; (23) and (24) because they set temporal limits on inalienable features of roses and whales; and (25) because 'knowing a language' is not a phenomenon that occurs intermittently. However, all this complicated semantic information which would have to be represented in the semantic component of a generative grammar of SC before we can claim unacceptability of each of (20) through (25) to native speakers of the language can be dispensed with by marking the appropriate verbs in the lexical component with the feature [+stative] and specifying the syntactic rules which would be 'blocked' by that feature. In this way, we achieve one of the basic goals of grammatical description, which is to have as few statements (rules) as possible that are as general as possible.

The conclusion that we can make - from the point of view of a generative grammar of SC - about the aspectual categories found within the class of non-totive verbs is that some verbs (or, often, only certain meanings of some verbs) would have to be marked with the feature [+stative] , which will then block the operation of certain syntactic rules. Since there is as yet no grammar of SC (generative or other) that would be anywhere near complete, we cannot specify those syntactic rules in precise terms. We can, however, say that they would include all those rules that bring about syntactic relations utilizing the temporal contour of a verb, either the entire contour or any point or segment thereof.

4.2 RELATION OF TOTIVE, CURSIVE, AND STATIVE TO PERFECTIVE AND IMPERFECTIVE. So far the implication has been that there is a neat correspondence between the traditional perfective/imperfective dichotomy, and that the three aspectual categories that we have established, namely that totives correspond to perfectives, cursives to those imperfective verbs that denote activities and processes, and statives to the imperfectives standing for various states, properties and relations. However, this is not exactly true under the interpretation of aspect based on the verbal temporal contour. It is only true in so far as the majority of grammatical reactances of each of the three categories are concerned. However, there are aspectual reactances which are common to statives and totives, others which unite cursives and totives, as well as, of course, those which bind together statives and cursives into what we have called the non-totive class, corresponding to the traditional imperfectives. This is best seen if the relevant information is presented in tabular form. Before we do so, we have to assemble all the reactances that are involved in the distinction between the three aspectual categories. Here is a description of such reactances:

A. The form of the present tense of the verb may or may not mean present time in relation to the moment of utterance.

B. The verb may or may not form the present participle (the form ending in -ći).

C. The verb may or may not be used in an adverbial clause of time serving as the 'time frame' for another verb expressing momentary action; illustrated by examples (10), (12), and (19).

D. The verb may or may not be used in an adverbial clause of time serving as background for a temporally parallel action or state; illustrated by (11), (15), and (22).

E. The initial and/or the final point of the contour may or may not be used for temporal reference within the same sentence; illustrated by (13), (14), (16), (17), (20), (21), (23), and (24).

F. The verb may or may not be used in an adverbial clause of time serving as temporal reference for another verb expressing a repeated action; illustrated by (18), (25), and

26 Kad god dodje i posjedne, razgovaraju o poslu. 'Whenever he comes and stays a while, they discuss business.'

We can now show in tabular form the relationships of cursives, statives, and totives to the reactances A through F and to each other. The examples given as illustrations of each reactance also serve as evidence of the information stated in the table.

	A	B	C	D	E	F
CURSIVE	+	+	+	+	+	+
STATIVE	+	+	-	-	-	-
TOTIVE	-	-	-	+	-	+

('Positive' reactance, i.e. what corresponds to 'may' in the description of reactance frames, is marked with a '+'; 'negative' reactance corresponding to the 'may not' alternative is marked with a '-'.)

As can be seen from the above table, no two aspects are completely different from each other. In fact, because of the number and nature of the reactances selected for presentation in the table (which does not necessarily exhaust either the number or nature of possible reactances), any two of the three aspectual categories are alike in relation to two and different in relation to four reactances, the ratio of similarity and difference thus being 1 : 2 for any two categories. Such a situation points to two important facts: 1. the relation of the new categories to the traditional ones is by no means neat, and 2. the new categories are not mutually divided by hard and fast lines - there is overlapping between any two of the three categories. Thus, although it was said earlier that the verbs falling outside the totive aspect could conveniently be subsumed under a 'non-totive' label, we now see that there are equally valid grounds for setting apart a 'non-cursive' as well as a 'non-stative' group of verbs.[9]

It is important to emphasize that the new aspectual categories have been established by means of syntactic criteria, and, although there might be a great deal of overlapping with verb classes discoverable by a purely semantic analysis, our syntactic categories and the putative semantic classes would no doubt diverge to a significant degree. Furthermore, it must be pointed out that the three categories are not systematically related to morphological classes. While 'perfective' and 'imperfective', i.e. 'totive' and 'non-totive', verbs are, as a rule, set off from each other by prefixation or stem expansion[10] (the conspicuousness of the distinction being probably the reason for its early recognition by traditional grammarians), the difference between cursives and statives is never morphologically marked (which is probably one reason why it was overlooked for such a long time). Finally, it should be noted that a verb may change its aspectual category without changing either its form or 'basic' meaning. For example, misliti 'think' may behave aspectually either as a cursive (Ona uvijek misli o tome 'She always thinks about that'), or as a stative (Misli da sve zna 'He thinks that he knows everything'). Such verbs could be marked in the lexicon with syntactic features showing that they may be used with more than one aspect. The minor differences of meaning correlated to differences of aspect could then be omitted from the semantic specification of the lexical item, since they would be predictable from the syntactic features. However, not all verbs capable of associating with more than one aspect behave like misliti. Many verbs undergo a considerable change of meaning with a change of aspect (or, conversely, change of meaning brings about change of aspect). Thus, slušati as a cursive means 'listen', as a stative 'obey'.

4.3 SUBCATEGORIES OF STATIVE ASPECT. We have referred to verbs of stative aspect as those which usually stand for states, properties, and relations. It appears that those among them that typically denote 'psychological states' are in some respects aspectually different from other verbs which express more permanent states, i.e, properties and relations. Example (19) shows that vjerovati 'believe' - a 'psychological state' verb - behaves like other statives with respect to aspectual reactance C (postulated above).[11] However, the behavior of psychological state verbs in respect of reactances D, E, and F suggests that their temporal contour is different from the contour of other statives. This is illustrated by the following sentences, of which (27) shows the behavior of psychological state verbs under reactance D, (28) through (32) their behavior under reactance E, and (33) under reactance F.

27	Cijelo vrijeme dok smo ih mi mrzili, vi ste ih voljeli, a sad kad ih mi volimo, vi ih mrzite	'All the time that we hated them, you loved them, and now that we love them, you hate them'
28	Vjerovao je u duhove od kad je bio dijete do svoje 33. godine	'He believed in ghosts from the time he was a child until he was 33 years old'
29	?Vjerovao je u duhove od 23. decembra do 8. januara	'He believed in ghosts from December 23rd to January 8th'
30	?*Vjerovao je u duhove od 23. XII u 17 sati do 8. I u 3 sata	'He believed in ghosts from 12/23 at 5 p.m. to 1/8 at 3 a.m.'
31	Vjerujem mu od kako sam to čuo direktno od njega	'I have believed his story since I heard it directly from him'
32	Vjerovao sam mu sve dok nisam čuo njenu verziju priče	'I believed him until I heard her version of the story'
33	Kad god mislim da on ima pravo, budem izigran	'Whenever I think he's right, I get outsmarted'.

These examples show that statives denoting psychological states are different from other statives in being positively, rather than negatively, marked for reactances D, E, and F. Furthermore, (28), (29), and (30) show that although a psychological state verb may have a temporal contour whose initial and final points are delimited by time adverbials, the acceptability of sentences with psychological state verbs decreases as the delimitation of the contour's boundaries becomes more specific.

In addition to the syntactic evidence for the validity of distinguishing two categories within the class of stative verbs in SC, there are morphological factors which provide strong support for such a distinction. Namely, the group of statives largely consisting of verbs denoting psychological states may form verbs of totive aspect, mostly with inchoative meaning, either by prefixation or some other standard morphological device; the other group, composed of verbs standing for properties and relations, may not be used to derive verbs of totive aspect of any type. Here are some examples of the former group of statives with corresponding totive verbs:

Stative	Totive
znati 'know'	saznati 'get to know, learn'
misliti 'think (that..)'	pomisliti 'think for a moment (that..)'
voljeti 'love, like'	zavoljeti 'come to love or like'
mrziti 'hate'	zamrziti 'conceive a hatred for'
vjerovati 'believe'	povjerovati 'believe for a moment or temporarily'
slutiti 'suspect, apprehend'	naslutiti 'feel, guess intuitively'
sumnjati 'doubt'	posumnjati 'begin to doubt', or 'doubt for a moment or temporarily'
govoriti 'speak, have the capacity for speaking'	progovoriti 'begin to speak'
mirisati 'smell good'	zamirisati 'begin to smell good'
izazivati (e.g. divljenje) 'call forth, elicit (e.g. admiration)'	izazvati 'elicit (e.g. admiration) in a certain instance, on one occasion'

Some verbs of this class can be used as totive verbs without any morphological change. They are usually verbs that already have a prefix but are felt, synchronically, as 'simple' verbs, e.g. *razumjeti* (historically *raz-umjeti*) which, as a stative, means 'understand, have a grasp of something' and, as a totive, 'begin or come to understand'. Vidjeti 'see' (in the sense of 'understanding', i.e. as a state of mind) is interesting in that, in the present tense, it may function both as a stative and a totive verb (the latter only in the 'historical present', with iterative meaning, or in dependent clauses), while in the past tense it can only function as a totive. The verb govoriti in our list above has the meaning 'have the capacity or knowledge required for speaking a (foreign) language' when used with stative aspect, but if the aspect is cursive, the verb means 'be engaged in the activity of speaking'. This is another example showing how lexical entries for certain verbs may be simplified by the specification of aspectual features. The totive progovoriti may correspond to either the stative or the cursive aspect. If it corresponds to the stative verb, the usual reference of the meaning of 'beginning to speak' is the time of a child's acquisition of a spoken language (and only humorously the time of an adult's mastery of a foreign spoken language); if the correspondence is to the cursive verb the meaning is simply 'speak up', say, after a long silence. We will call the totive verbs with the meaning like the former inchoative, those with a meaning analogous to the latter ingressive, while the common name for totive verbs denoting the beginning of either a state or an action will be inceptive. How these fit into the general plan of verbal aspect in SC will be shown in the latter part of this paper.

A common syntactic-semantic feature of the verbs in the above list is that their grammatical subject may never be what Fillmore (in Bach and Harms, 1968, and Fillmore, 1968b) and others after him have called an 'Agent'. This is only to be expected if we bear in mind that the core of the verbs of this class is constituted by verbs denoting psychological states. The deep structure case of the surface subject usually associated with all but the last three pairs of items in our list is what Fillmore called 'Dative' in "The Case for Case" and 'Experiencer' in a later work (Fillmore, 1968b). With the last three pairs of items the deep structure case of the usual surface subject is Filmore's 'Object' ("the entity that moves or changes or whose position or existence is in consideration", Fillmore, 1968b, p.77). If a verb may be used both as stative and as cursive, the case of the subject is Experiencer or Object (depending on the verb) when the verb is stative, but when it is cursive the case of the subject must be Agent. Thus, the ambiguous SC sentence:

34 Jakica govori španski 'Jacob speaks (can speak) Spanish' or 'Jacob is speaking Spanish.'

may be disambiguated by assigning the verb to either the stative or the cursive aspect, the Agent/non-Agent feature of the deep structure case of the subject being predictable in either case. There is thus a relationship of redundancy between Fillmore's deep structure cases and the SC aspects as we have posited them.

We have said earlier that the stative verbs which can form totives generally signify 'psychological states'. While this is clearly true of the first seven pairs of verbs in our list above, it is much less obvious in the case of the last three pairs. Speaking one's native language in the sense of knowing how to speak it is a property of normal human adults rather than what we usually mean by a psychological state. Smelling good and eliciting admiration can be ascribed to both animate and inanimate entities and can therefore hardly be called psychological states. In trying to find a convenient label for this sub-group of stative verbs we should remember that the other sub-group, the one which may *not* form totives, consists of verbs that stand for permanent properties and relations. These we can call *permanent states.* It seems logical, then, to dub the sub-group typified by psychological states *non-permanent states*. For the sake of brevity we will sometimes refer to the corresponding verbs as *permanent statives* and *non-permanent statives* respectively.[12]

The categories of SC verbs of stative aspect[13] is thus seen to be divisible into two sub-categories. The picture is quite clear as far as the 'typical' verbs are concerned: on one side we have such obvious permanent states as the intransitive *mjeriti* 'measure', *nalaziti se* 'be situated', which under no circumstances can be made totive, on the other side we have non-permanent states which belong to this class by virtue of being capable of becoming totive. But while the 'bodies' of the subcategories are well established, there is, as usual, some indeterminacy on the border between them. First, there is a small number of non-permanent statives which are not readily used with totive aspect but which, on the basis of their meaning, belong in this class, e.g. *smatrati, držati,* both meaning 'consider, regard as, hold that'. This, however, does not seem to present a serious problem to our classification, since the totive aspect (with inchoative meaning) corresponding to these verbs can be expressed by using them as complements of the verb meaning 'begin', as in the sentence

35 Počeo je da ga smatra otudjenim čovjekom — 'He began to regard him as an outsider'

The difference between permanent and non-permanent statives is thus maintained by grammatical criteria, since a permanent stative combined with početi 'begin' yields an ungrammatical sequence:

36*Ta haljina je počela da košta 10.000 dinara na Novu godinu
*'That dress began to cost 10,000 dinars on New Year's Day'

It must be emphasized that this constraint is grammatical in nature (as is the difference between permanent and non-permanent statives), since there is nothing of a conceptual nature that would make it impossible for us to associate the price of a merchandise with the time of its inception. (And that 'costing' is not a permanent state of merchandise in the 'real world' of today hardly needs arguing!) Indeed, the following paraphrase of (36) is perfectly acceptable:

37 Ta haljina košta 10.000 dinara od Nove godine
'That dress has cost 10,000 dinars since New Year's Day'

However, not all sequences of početi + a permanent stative are ungrammatical. Let us look at the following:

38 Životni standard je rastao. Pristojna haljina počela je da košta samo 5.000 dinara, sobe u stanovima počele su mjeriti 4 x 4 metra u prosjeku, ...
'The standard of living rose. A decent dress began to cost only 5,000 dinars, the rooms in apartments began to measure 4 by 4 meters on the average, ...

In this passage we have početi combined with two permanent statives, but in a sentence with generic meaning. The grammar, especially the deep grammar, of generic sentences has often been found to differ from the grammar of non-generic sentences. A comprehensive study of generic sentences seems to be needed to explain phenomena like the one we are dealing with in a way that would result in useful generalizations by which individual problems, such as this one, would be explained. Until such a study is made, we have to try to account for separate problems as they present themselves. The following seems to be a likely interpretation of the problem at hand. When a non permanent stative is made into an inchoative, morphologically or otherwise, the inchoative designates the initial *moment* of the state denoted by the stem of the verb. In other words, it is possible with such inchoatives to point to a moment in the 'real world' and say: "That is when it (the state) began".

39 Zavolio ju je čim ju je vidio — 'He fell in love with her as soon as he saw her'

40 To je saznala u ponoć, i već u zoru napustila je grad — 'She learnt about it at midnight, and at dawn she had already left the city'

In example (38), however, it is impossible to point to a moment and say: "At that moment a decent dress began to cost 5,000 dinars" or "At that moment rooms in apartments began to measure 4 by 4 meters". In fact, the addition of such a specification would make the second sentence of (38) ungrammatical. It is as if the generic character of the sentence 'diluted' the point of time contained in the meaning of *početi* and 'spread' it over a period of time. For a stative verb to qualify as a non-permanent stative, it has to be capable of forming a 'pure' inchoative which would mark the very moment of the inception of a state. Therefore, our generic sentence does not provide the proper environment which could qualify the verbs *koštati* 'cost' and *mjeriti* 'measure' for inclusion in the category of non-permanent statives.

If we now try to apply the test of whether or not a stative verb can be used as a complement of *početi* in a non-generic sentence to decide to which of the two sub-categories of statives it belongs, we will find some verbs which can be used both ways, although their usage as non-permanent statives is not always easy to establish.

Consider these sentences:

41 a	'Lakistrajk' znači fin duhan.	'Lucky Strike means fine tobacco.
b	Engleska riječ 'nice' nekad je značila 'glup'.	'The English word 'nice' used to mean 'foolish'.'
42 a	Zebra se razlikuje od konja po tome što ima pruge.	'The zebra differs from the horse in having stripes.'
b	Razlikuje se od oca od kako je pustio brkove.	'He has looked different from his father since he grew a moustache.'
43 a	Pekarij liči na divlju svinju, samo je manji.	'A peccary resembles a boar, only it is smaller.'
b	Sa svojom novom frizurom počela je da liči na svoju sestru.	'With her new hairstyle she began to resemble her sister.'

Each of the (a) sentences contains a verb standing for a permanent state. This is established by putting the verb in the place of the complement of početi - the result is never an inchoative with a 'momentary' meaning such as we found to be necessary for a verb to be classed as a non-permanent stative; in fact, the result is often a significant shift of meaning (significant, that is, for what is at issue) or some type of conceptual incongruity, as we are about to show.

The authors of the Lucky Strike slogan (and it is only their intended meaning that we are interested in, not the truth value of the slogan) would no doubt reject a sentence with begin before the verb mean since, to them, Lucky Strike is in a sense identical with fine tobacco, so that the beginning of one implies the beginning of the other. The use of mean in (41b) seems to place it in the non-permanent category as it is conceivable, though not usual, for a word to 'begin to mean' something, say at the moment of some (usually influential) person's using it in a new sense. 'To mean', in this word-meaning sense, yields grammatical sentences when used also in some other environments which characterize non-permanent statives and distinguish them from permanent statives (cf. examples (19) through (25)). The conclusion that we are inclined to make is that *značiti* 'mean' may be used, with a slight difference of meaning, as either a permanent or a non-permanent stative, although its use as a non-permanent stative is somewhat marginal.

If we apply the inchoation test to (42a), we discover that the verb *razlikovati se* 'differ' must be considered a permanent stative: using it with *begin* would impose on the sentence the conceptually incongruous presupposition that zebras were zebras even before they became zebras (!). However, the same verb in (35b) is different: we can now talk of 'beginning to look different', although the momentary meaning of the inchoative structure can be questioned - a moustache does not 'happen', it takes time to grow. There is perhaps a possibility of interpreting this sentence in the sense expressed in the paraphrase 'I have found him different from his father since I saw him with a moustache.'[14] This interpretation would supply the required 'moment' - implicit in the verb 'see' - in the inchoative structure and thus meet the conditions for the assignment of the verb *razlikovati se* to non-permanent states. The sentences of (43) are quite like those of (42): (a) expresses a 'general truth' which, being general, is not thought of as having a 'beginning'; therefore the verb 'resemble' in (a) is a permanent stative. The same verb in the (b) sentence does not express a 'general truth' but rather a subjective judgement; whether or not we classify it as a non-permanent stative depends on our interpretation of the sentence, very much as in the case of (42b).

4.4 SUBCATEGORIES OF CURSIVE ASPECT. Cursive verbs can also be subdivided into two groups on aspectual grounds. The distinction can be established on the basis of the following sentences:

44 a	Dok je radio u Korpusu mira, vjerovao je da se problem siromaštva može riješiti mirnim putem	'While he worked in the Peace Corps, he believed that the problem of poverty could be solved in a peaceful way'
b	*Dok je tog jutra opravljao traktor, vjerovao je da se problem siromaštva može riješiti mirnim putem	*'While he was repairing a tractor that morning, he believed that the problem of poverty could be solved in a peaceful way'
45 a	Dok je svirao klasičnu muziku, smatrali su ga najboljim gitaristom u zemlji	'While he played classical music, he was considered the best guitarist in the country'
b	*Dok je svirao na koncertu te večeri, smatrali su ga najboljim gitaristom u zemlji	*'While he was playing at the concert that evening, he was considered the best guitarist in the country'
46 a	Mrzio je hamburgere sve dok je jeo po restoranima	'He hated hamburgers as long as he was eating out'
b	*Mrzio je hamburgere sve dok je na ručku tog dana jeo supu	*'He hated hamburgers as long as he was eating soup at dinner that day'
47	Dok je vladao Indijom, Aleksandar Makedonski je mislio da je polovina svijeta pod njegovom vlašću	'While he ruled over India, Alexander the Great thought that half the world was under his power'

These examples have been structured to test the behavior of cursives in sentences expressing 'temporal parallelism', i.e. under reactance D. The dependent clauses contain verb phrases with a cursive verb in each, while the VP's of all the main clauses contain non-permanent statives. Yet, some of these sentences are grammatical (all (a) sentences and (47)), while others are not (all the (b) sentences). A comparison of the members of each (a-b) pair in (44), (45), and (46) reveals that it is a difference in the aspectual character of the verb phrases in dependent clauses that is responsible for the difference in grammaticality. The individual verbs in the dependent clauses of each of the three pairs of sentences are the same, but different modification structures bring about aspectual differences which, in turn, affect the syntax of the sentences of which they are a part. We can characterize the difference between the two kinds of verb phrases, the kind represented by the VP's of the dependent clauses of the (a) sentences and sentence (47) and the kind found in the dependent clauses of the (b) expressions, in the following way: the former describe habitual activities, sometimes presented almost as temporary characteristics of the subjects to which they are ascribed, as in (44a), (45a), and (47), sometimes as simple habits, as in (46a); the latter describe individual instances of fairly uniform activities taking place throughout a time span. Following a tradition in the study of similar distinctions in analytic philosophy (Ryle, 1949, pp.44 and 118; Vendler, 1967, p.109), we can call the two kinds of cursive verb phrases *generic* and *specific* respectively. (It should be pointed out that the distinctions are *not* exactly analogous to the ones made in philosophy.) Generic cursives are thus closer in meaning to statives, especially to non-permanent states, than specific cursives are. Hence, perhaps, the aspectual compatibility of generic cursives with non-permanent states in clauses expressing temporal parallelism versus the incompatibility of specific cursives with non-permanent states in the same type of clauses. An example of what is described by a 'more typical' generic cursive is seen in the phrase *work in the Peace Corps*, where the action consists of various activities none of which is necessarily identifiable as the activity of 'working in the Peace Corps'. The specific cursives, on the other hand, always consist of a single, fairly uniform, activity.

While many cursive verbs can, with appropriate expansions and modifications, assume both the generic and specific aspect, as illustrated by the examples in (44), (45), and (46), some cursive verbs have inherent generic aspect which is never affected by environment. An example of the latter kind is the verb vladati 'to rule' in sentence (47), which, therefore, has no ungrammatical counterpart corresponding to the (b) examples in (44) through (46).

In connection with 'imperfective' verbs in Slavic languages, more specifically with what we have called 'cursive' verbs, traditional grammarians have spoken of the so-called 'iterative' category of verbs. It seems to us that this category, though it may prove of value in the discussion of aspectual phenomena, does not have adequate grammatical potential of the kind that is needed for a category to be considered aspectual. We will try to show that 'iterative' is basically an aktionsart entity, although it is frequently involved in the categories that we have or will set up in the plan of SC aspect proposed herein.

First, it must be borne in mind that all SC verbs, except permanent statives, may, with sufficient context, be used iteratively. Thus a verb like govoriti 'speak', modified by an adverbial such as 'often' or 'every day', becomes iterative in meaning. Conversely, every 'iterative' verb can be used with a 'durative' meaning, the aspect of such a durative being specific cursive, except if it derives from an inchoative, in which case the aspect is non-permanent stative. The following examples illustrate this point:

Iterative meaning	Specific-cursive aspect
48a On uvijek završava s poslom u 5 sati 'He always finishes his work at 5 o'clock'	b Upravo sada završava s večerom 'Right now he is finishing his dinner.'
49a Mihalić obično pobjedjuje u trkama na 10.000 metara 'Mihalić usually wins the 10,000 meter races'	b Mihalić prvi prekida vrpcu i pobjedjuje u ovoj trci 'Mihalić breaks the tape first and wins the race'
	Non-permanent stative
50a Ova slika izaziva (inchoative) moje divljenje kad god je pogledam 'This painting elicits my admiration every time I look at it'	b Ova slika izaziva moje iskreno divljenje. 'This painting elicits my sincere admiration'

What the traditionalists usually called iterative verbs are verbs derived from totives of momentary meaning by the addition of $(\left\{\begin{matrix} a \\ i \end{matrix}\right\} v)\, a$ to the stem of the verb. Because of their 'momentary' origin and due to facts related to the nature of human experience, these derived verbs tend to be used more frequently to designate repetitions of momentary actions than 'long' instances of the momentary actions themselves. The traditional name of such verbs - 'iterative' - is thus seen to be traceable to a frequency phenomenon and, as such, has no purely grammatical validity.

It was said above that the iteratives used 'duratively' are, aspectually, specific cursives, rarely non-permanent statives. If used iteratively, they are almost always generic cursives, as can be seen from these examples (compare the reactance frames of generic cursives illustrated by (44) through (47)):

51 Dok je posjećivala prijatelje, mislila je da je to najljepši način da se provede slobodno vrijeme	'During the time that she visited friends she thought that it was the best way of spending one's free time'

52 Dok je pobjedjivao, vjerovao je da slava nikad ne umire. 'During the time he was winning, he believed that fame never dies'

It is not difficult to see why verbs with iterative meaning usually assume the generic-cursive aspect. We have seen above that generic cursives represent habit-like activities, and iterative, that is repetitive, actions are, indeed, 'habit-forming'. Sentence (52) is particularly instructive: the verb *pobjedjivati* 'win', with its morpheme *-iva*, could be interpreted either duratively or iteratively as far as the dependent clause itself is concerned (the same verb is durative in (49b)). However, the non-permanent stative in the main clause assigns it the generic cursive aspect and thereby iterative meaning.

4.5 SUBCATEGORIES OF TOTIVE ASPECT. We will now look at various kinds of totive verbs to see if there exist systematic differences in their temporal contours which would necessitate postulating aspectual subcategories within this class. In section 4.0 we saw that the common syntactic denominator of all totive verbs is the indivisibility of the temporal dimension associated with the action or state designated by the verb. Now we will try to show that different *values* of this dimension yield different aspectual subcategories.

There is, first, a class of totive verbs which stand for actions and events that are always thought of as *lasting* for a period of time, however short it may be. These are illustrated in the following sentences:

53 Porazgovarao je s nama (jedno pola sata) i otišao. 'He talked with us (for about half an hour) and left'

54 $\left\{\begin{matrix}\text{Proveo}\\ \text{Ostao}\end{matrix}\right\}$ je 6 mjeseci u Finskoj — 'He $\left\{\begin{matrix}\text{spent}\\ \text{stayed}\end{matrix}\right\}$ 6 months in Finland'

55 a *Odležala je 7 nedelja u bolnici* — '*She stayed (lit. 'lay')* 7 weeks in the hospital'

b Odradio je godinu dana koliko je primao stipendiju — 'He worked off the year that he owed for his grant'

56 $\left\{\begin{matrix}\text{Presjedio}\\ \text{Prespavao}\end{matrix}\right\}$ je cijeli dan — 'He $\left\{\begin{matrix}\text{sat}\\ \text{slept}\end{matrix}\right\}$ all day long'

As was shown in our discussion of the verbs of this class in section 4.0, no individual segment of these verbs' temporal contour, in spite of its durative value, may be used for any temporal reference. This is in contrast to cursive verbs with a durative temporal contour whose every and any segment can be used for temporal reference by another constituent in the same sentence. There are other syntactic features which set apart this particular class of totive verbs, which we shall call extensive. Thus, although totive extensives may be used in temporally parallel clauses in the same sentence thanks to the fact that such usage involves the totality of their temporal contour (as in 11), they may not be used in the dependent clause to serve as a time frame for a cursive verb in the main clause. That is, the following is ungrammatical:

57 *Dok smo posjeli, on je pušio Moravu — 'While we sat for a little while, he was smoking Morava'.

But if we have a cursive verb in the time frame clause and a totive in the main clause, we get a grammatical sentence; for example:

58 Dok je on radio u bašti, mi smo posjeli u kući sa ženom mu — 'While he was working in the garden, we sat for a little while in the house with his wife.'

This sentence, however, may or may not express complete temporal overlapping. A possible interpretation is that we sat in the house only part of the time he spent working in the garden; such an interpretation would not be possible in a sentence in which both verbs were cursive. Finally, the outstanding feature of totive extensive verbs, that by which they differ from all other totives, is the fact that they can, and with one exception must, be modified by a time adverbial realized as a noun phrase in the accusative. This is shown by examples (53) through (56).

These examples were chosen so as to illustrate various aktionsarten that occur with this aspectual class, i.e. groups of verbs with common semantic and/or syntactic characteristics other than those affecting their temporal contour.[15] Thus, (53) contains an example of the diminutive aktionsart formed from intransitive cursives by means of the prefix po-. (The same prefix used with transitive verbs has a different function.) The meaning of the verbs of the diminutive aktionsart is 'do something for a short time or only to a small degree', hence the possibility for these verbs to appear without a time adverbial, since their meaning is such that they already imply a temporal value. This is not the case with the other aktionsarten of this aspectual category, hence the need for specifying the duration of the other totive extensive verbs separately. The common meaning of all the verbs in this aspectual category is 'spend some time doing what is denoted by the stem of the verb'. We have seen that the aktionsart illustrated in (53) shows that the time is short. The verbs in (54) can be said to represent the 'unmarked' aktionsart of the totive extensive aspect, the verbs such as those in (55) mean 'do something for a period of time required by some arrangement', those of (56) could be said to belong to the 'augmentative' aktionsart since the time spent in the appropriate activity exceeds the speaker's expectations.

The sub-aspect of the totive aspect that we shall now consider we will call *terminative*. The term is designed to imply a temporal contour that can be represented graphically as ... →. The dots before the line are intended to convey the idea that a loose beginning of the contour is often implied but never exactly specified. The line itself represents the extensive element of the contour. The final point, which is also an integral part of the line, symbolizes the point-like limit of the action, the 'climax' at which the action is consumated. The verbs of this sub-aspect may be modified by time adverbials consisting of the preposition *za* 'in' + a noun phrase in the accusative. Here are some examples:

59	Napisao je pismo za pola sata	'He wrote the letter in half an hour'
60	Pročitala je knjigu za nedelju dana	'She read the book in a week'
61	Popio je litar votke za jedan sat	'He drank a liter of vodka in one hour'
62	Ispisala je čitave 4 stranice	'She wrote out a total of four pages'
63	Dočitao je članak za jednu minutu	'He finished reading the rest of the article in one minute'
64	Za kratko vrijeme su se nagledali tog prizora	'In a short time they had had enough of looking at that sight'
65	Za nekih 5-6 dana svi su se u kući porazboljeli	'In about 5-6 days all the members of the household fell ill, one after another'
66	Nakon pola sata potpuno su ih nadigrali	'After half an hour they had outdanced them completely'
67	Za koliko vremena si prepisao to pismo?	'How long did it take you to copy that letter?'

The number of the examples given should suggest the large number of SC verbs belonging in this class, especially in comparison with the totive extensive class. The number of aktionsarten associated with this aspectual class is also considerable. The most typical aktionsart is the one illustrated in (59) through (61), which we would like to call perfective: it is this aktionsart, rather than any other verbal category in Slavic languages, that properly denotes the completion of an action, with or without the implication of previous activity of the same kind. (The latter criterion will assign verbs of this class to either the terminative or the instantaneous sub-aspect of the totive aspect, as we shall see below.) The perfective aktionsart of terminative aspect is distinguished from other aktionsarten by two formal criteria: a) the verbs of this aktionsart are derived from morphologically simple cursive verbs by one of a limited number of prefixes (the most usual being po-), b) they do not, in turn, form new cursives by stem expansion. Semantically, these verbs differ from others in that they show mere completion of the action, and nothing beyond it. All the other aktionsarten combine completion with some other idea. Thus, the verb in (62), besides denoting completion, dwells on the process of writing, with a suggestion of meticulousness. (I have no ready label for this rather rare aktionsart.) The verbs of the kind illustrated in (63), regularly derived with the prefix do- (though do- has other functions, too), imply the completion of a final portion of the action denoted by the stem and can conveniently be labeled finitive. Sative is a good term for verbs like the one in (64), denoting satiety of the subject at the point of completion of the action, majorative for the aktionsart illustrated in sentence (66), showing that the action signaled by the stem of the verb is performed in a superior manner by the subject(s) than by the object(s) of the verb. (The last two terms are taken from Grubor, 1953, p. 12). The verb of (65) can be assigned to a distributive aktionsart.

(67) contains a verb meaning 'to copy', i.e. to repeat the action denoted by the verb from which it derives, and, again, bring the action to completion. Other, less important, verb groups with common formal-semantic features can be found within this aspectual category, but they contain nothing of interest to us. The important distinction, which is interrelated with aspect, is that between 'pure' perfective verbs and all the other aktionsarten. In addition to the differences stated above, this distinction is supported by the fact that a perfective verb has only one cursive verb corresponding to it:

terminative (perfective aktionsart)	cursive
pročitati	čitati
napisati	pisati,

whereas a verb of one of the other aktionsarten has two corresponding cursives:

ispisati	pisati, ispisivati
dočitati	čitati, dočitavati;

the first cursive in each row corresponds to the 'basic' meaning of the terminative verb, the second one corresponds to the special meaning of the particular aktionsart from which it is derived by stem expansion.

The last aspectual category to be posited in this reinterpretation of SC aspect is a third subclass of totive verbs. Whatever is denoted by a verb of this subclass is viewed as taking place at a dimensionless point of time. It is thus labeled instantive. The reactance of this subclass is the possibility of modification by a time adverbial consisting of the preposition u 'at' + an accusative noun phrase that stands for a point of time. Examples:

68 Stigao je u podne 'He arrived at noon'

69 Odjednom su prasnuli u smijeh	'Suddenly they burst into laughter'
70 Tog momenta je {zapjevala posumnjala u nas}	'At that moment she began to sing to suspect us
71 Pročitao je tu knjigu tačno u 3 sata	'He finished reading that book exactly at 3 o'clock'
72 Dočitao je pismo u ponoć	'He finished reading the rest of the letter at midnight'
73 Kad smo stigli, oni su ih već bili nadigrali	'When we arrived, they had already outdanced them'
74 Ako uspita za mene, reci joj da sam dobro	'If she should ask about me, tell her that I am well'
75 Legao je i zaspao za 5 minuta	'He went to bed (literally: lay down) and fell asleep in 5 minutes'.

Sentence (68) illustrates a class of 'neutral' *instantive* verbs with no additional meaning beyond that implied by the particular verb. These verbs might be said to constitute a simple instantive aktionsart. The verb in (69) is representative of what is traditionally known as the *semelfactive* class of verbs, formally distinguished by a stem ending in -*nu* and describing usually a sudden bodily movement or a brief and often sudden vocal expression. The verbs of (70) denote the beginning of an action and a state, the labels already proposed for them being *ingressive* and *inchoative*, the common term being *inceptive*.

Sentences (71), (72), and (73) contain the same verbs as the sentences (60), (63), and (66). This suggests that terminative verbs can also be used as instantive. That this is so is supported by other co-occurrence restrictions which they share with instantive verbs when used as such. The instantive meaning of what were earlier called terminative verbs isolates the final point of completion. Thus, while in their terminative meaning verbs like *pročitati* may be modified by more than one place adverbial to show that the development of the action proceeded at more than one location:

76 Tu sam knjigu pročitao kod kuće, na poslu i na odmoru. 'I read (perfective) that book at home, at work, and on vacation'.

The same verbs, in their punctual meaning, may be modified by only one place adverbial:

77 Tu sam knjigu pročitao na poslu juče u 11 sati 'I finished reading that book at work at 11 o'clock yesterday'

but not:

*Tu sam knjigu pročitao juče u 11 sati kod kuće, na poslu, i na odmoru.

The restrictions of this kind are clearly of a conceptual nature: something that occurs at a mathematical point of time cannot take place at more than one location - changing location takes time, of which the mathematical point has none. This becomes particularly clear if we try to modify an indisputably punctual verb by more than one place adverbial:

*Zaspao je na podu, na kauču, i u krevetu. *'He fell asleep on the floor, on the sofa, and in the bed'

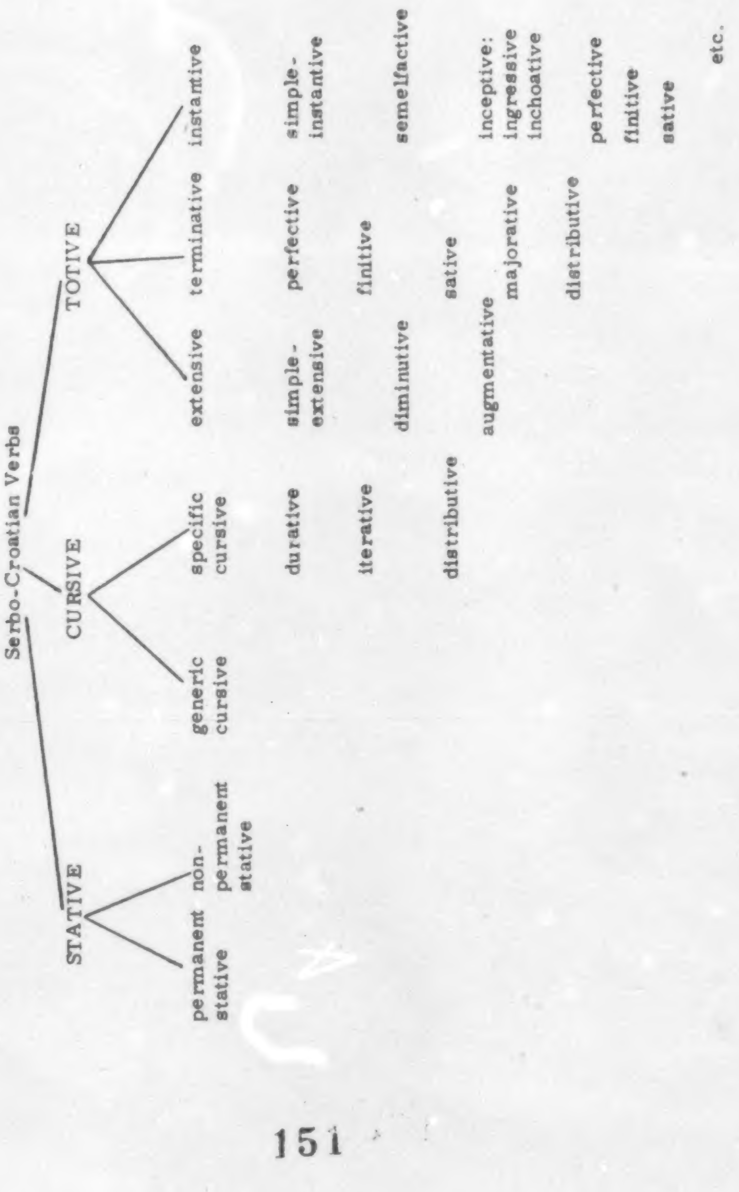
We still have to discuss sentences (74) and (75). (74) contains an example of verbs of a very productive aktionsart which is formed by the prefix uz- (the z assimilates to s before voiceless consonants). Such verbs are typically used in the dependent clause of a conditional sentence referring to a possible future event and have a modal value: the speaker does not expect, or has only remote expectation, that the condition expressed by such a verb will be fulfilled. Grubor gives these verbs the misleading label 'substitutive' (Grubor, 1953, p. 13).

Sentence (75) contains the instantive verb *zaspati* 'fall asleep' modified by the time adverbial *za + NP*, which we found to be associated with terminative aspect. The same time adverbial *may* be associated with instantive aspect too, but with a different referent: it refers *not* to the time period occupied by the action signaled in the stem of the instantive verb, but to the period that elapsed between another point specified either in the same sentence (as in our example) or somewhere else in the context and the point implied by the instantive verb. In (75) the first point is specified by *legao je* 'he went to bed'. The five-minute time period between the two points was not occupied by 'falling asleep' but actually by 'lying in bed'. In fact, there is no cursive verb in SC corresponding to the instantive *zaspati*. This double meaning of the *za + NP* type of time adverbial along with the capacity of many SC verbs to be used with more than one aspectual category help us interpret ambiguities like the following:

Prešao je most za 5 minuta 'He crossed the bridge in five minutes'.

This may be interpreted to mean: a) 'it took him five minutes to cross the bridge from one end to the other' - the aspect of the verb *preći* 'cross' is terminative and the five minutes were occupied by the action expressed in the stem of the verb, or b) 'it took him five minutes to cross the bridge after, say, he left the village' - the aspect of the verb is instantive (crossing the bridge is viewed temporally as an instant) and the five minutes were occupied by an action other than that expressed in the stem of the verb.

5. CONCLUDING REMARKS. Our reinterpretation of verbal aspect in SC yields the diagram shown below.


Serbo-Croatian Verbs
STATIVE
CURSIVE
TOTIVE
permanent stative
non-permanent stative
generic cursive
specific cursive
extensive
terminative
instantive
durative
iterative
distributive
simple-extensive
diminutive
augmentative
perfective
finitive
sative
majorative
distributive
simple-instantive
semelfactive
inceptive: ingressive inchoative
perfective
finitive
sative
etc.

If a node has more than one label, the uppermost one stands for an aspectual category, the other labels in the same column stand for some major aktionsarten associated with that category.

The diagram is based on the predominent syntactic behavior of the categories involved and does not present information about cases of overlapping, possible 'secondary' categories, etc. It is still a fair picture of the facts as they have been revealed by the present analysis.

The aspectual categories as they are presented in the diagram manifest a number of characteristics worth noting.

First, as we go from left to right we notice that the categories are ordered in the manner of a cline in Halliday's sense of the term: starting from the 'loose' contour of permanent states and going through the gradually less loose contours of non-permanent states and generic cursives, we come to the fairly 'specific' contour of specific cursives, which is also the first category that forms morphologically related aktionsarten. The action denoted by the verb has become so specific in terms of its 'real world' reference that it can be not only temporally limited in various ways, but also spatially, quantitatively, distributively, etc. This 'non-temporal' specification of the action is almost a universal feature of our next aspectual category, the totive. The overwhelming majority of totive verbs contain at least one prefix which almost invariably 'limits' the action of the verbal stem in ways other than temporal - this, then, results in the profusion of aktionsarten typical of this aspectual class. The subcategories of the totive aspect as represented in our diagram display another cline-like feature: the extensive value of the temporal dimension of the left-most subcategory of totive aspect is closest to the aspectual category to the left of totive; the next subcategory, terminative, moves away from it by introducing a fixed point in its temporal contour, until the last sub-category 'solidifies' the temporal contour to the utmost by turning it into a single point.

Further, there is a non-temporal semantic dimension of the verbal categories as presented in the diagram which is interesting to observe. This is the dimension 'abstract' versus 'concrete', usually discussed with regard to nouns. If we consider some typical examples from each of our categories going from left to right, we discover that those on the extreme left, such as odnositi se 'pertain', are highly abstract, and that they become less abstract and more concrete as we move to the right of the diagram, until we reach the most 'concrete' category at the far right end typified by a verb such as udariti 'hit'. This seems to suggest that our classification, though arrived at by an analysis of aspectual phenomena, may have other semantic, and probably also syntactic, implications.

Most of the categories that have resulted from the present analysis of aspect in SC should have counterparts in other Slavic languages; it would be particularly interesting to see to what extent the formation of totives as a test for distinguishing non-permanent from permanent statives applies in other Slavic languages. Furthermore, the same categories have grammatical relevance in English too.[16] This is supported by the fact that almost all the English translations of SC examples used in the establishing of individual categories have had the same status with regard to grammaticality. But the most interesting evidence of the significance of our categories for English grammar is connected with the use of the progressive form (the be + -ing form) in that language: a major function of the progressive being the indication of 'duration' of what is meant by a particular verb, the progressive is not used with statives because they are already 'durative' as a consequence of their intrinsic meaning and the resulting temporal conteur; with the categories that appear to the right of stative in our diagram, the progressive becomes more and more frequent as the temporal contour of the remaining categories becomes more and more limited, reaching, with the instantive at the far right end, the logical extreme of limitedness - the mathematical point. The aspectual categories that have been postulated here also have relevance for the rules governing the use of modals in English, the use of the perfect, and the rules of coordination. They appear to have a certain amount of relevance in the grammar of French (cf. Garey, 1957), and in the grammars of some other Indo-European languages. Whether they might have any significance for non-Indo-European languages or in terms of language universals still remains to be seen.

NOTES

1. This paper is an adaptation of one chapter of my Ph.D. dissertation A Synchronic Study of Verbal Aspect in English and Serbo-Croatian, University of Michigan, Ann Arbor, 1969.

2. The summary of the various views of the meaning of perfective aspect is based on Ferrell, 1951.

3. The notion of reactance of a grammatical category is taken from B. L. Whorf (1965, p. 89). He finds it useful in dealing with what he calls covert categories, i.e. those that have no morphological marker. Thus intransitive verbs in English constitute a covert grammatical category whose reactance is the lack of the passive participle and the passive and the causative voices. Names of countries and cities in English form another covert category with the reactance that they are not referred to by personal pronouns after the prepositions in, at, to, from. We can say 'I live in Boston' but not 'That's Boston - I live in it.' I would like to introduce the term "reactance frame" for a sentence with a slot such as 'That's ______ - I live in it' used for the purpose of establishing a grammatical characteristic of the element(s) (in)capable of filling the slot, or of elements which, used in the same slot, give rise to different grammatical meanings. "Reactance" and "reactance frame" can be used in a manner similar to "grammaticality test" and "transformational potential" while, it seems to me, being more precise and more widely applicable.

4. While the proof of universality of such deep structures will have to await a great deal of further empirical evidence, we may briefly note some evidence for the 'at this moment' element, which comes from the rules governing the use of the English progressive. In the following pair of English sentences,

I was working on the paper when he came in	I am working on the paper

the example on the left shows that if a speaker of English wants to talk about a past action or process developing as a background to a momentary event, he will choose the progressive form of the verb to express that action or process. In the sentence on the left, the event is expressed by he came in. The progressive aspect of the sentence on the right, which in every way parallels the 'background' clause of the sentence on the left, seems to be best interpreted in a parallel manner; the progressive is used as a 'background' to another event, or in relation to a point of time. Since no overtly signaled event or time point is found with this sentence, it seems reasonable to accept the intuitively correct analysis that the event is in fact the speech event itself, or that the point of time is the moment of utterance. It would appear, then, that a full account of the deep structure of English sentences with present progressive would have to include information either about the momentary nature of the speech event as such or about the moment of its occurrence. What types of sentences in various languages would have to have this information represented in their structure and what conditions remains to be determined by further research.

5. It seems to me that such a view of aspectual meaning in Slavic languages was based on the meaning of an aktionsart predominently associated with the so-called perfective verbs, as we will try to show in the latter part of this paper.

6. I use four kinds of symbols to indicate various degrees of grammatical acceptability of language specimens; they are, in order of decreasing acceptability: no symbol (fully grammatical), ? (grammaticality questioned), ?* (ungrammaticality questioned), and * (ungrammatical).

7. It should be noticed that cursive verbs are not all clear 'activity' verbs, which we might expect to find on the opposite side of stative verbs. Indeed, verbs like *stanovati* 'live, occupy an apartment', *sjedjeti* 'sit', *Šutjeti* 'keep silent', and *osjećati bol* 'feel pain', if judged on the basis of their lexical meaning, would be much more readily classifiable with states than with activities. However, with regard to their syntactic behavior in the aspectual frames that we have been examining, they belong together with other indisputable 'activity' verbs, such as *raditi* 'work' and *igrati* 'play'.

8. At the bottom of page 98 of his book *How to Do Things with Words* (Austin, 1965), Austin gives a tentative list of various illocutionary acts. It seems to me that this list would be improved upon if something like 'indirect speech act' were added to it. Furthermore, this illocutionary act would seem to be capable of being superimposed on other illocutionary acts, so that, depending on the combination, the result might be 'indirect statement', 'indirect question', 'indirect warning', or even 'indirect performative'. The illocutionary act which we have called 'indirect statement' would provide a solution to the grammatical problems raised by 'generic' sentences with verbs in present perfect, such as *Horses have been mammals*, discussed by Ota in section 2.1.3 of his book (Ota, 1963). We could simply say that such sentences are ungrammatical if used with the illocutionary force of 'direct statement' but can be grammatical if used with the illocutionary force of 'indirect statement'. (This should not be confused with closer-to-surface phenomena involved in the traditional distinction between 'direct' and 'indirect speech'.)

9. The syntactic behavior of SC verbs with regard to aspect is in accordance with what has been brought to light by recent investigations in syntax, especially within the framework of transformational grammar: syntactic categories do not, typically, form neat hierarchical structures, but, rather, involve overlapping and cross-classification (cf. Chomsky, 1965, pp. 79-84).

10. This is not always the case. SC, unlike most other Slavic languages, has a considerable number of verbs which may be used both perfectively and imperfectively without a change of form. Besides, such verbs are on the increase, as most borrowed verbs join this class of verbs of 'double aspect', as it is called by Yugoslav linguists. See Grickat, 1958.

11. That a stative which does *not* denote a psychological state behaves in the same way in respect to reactance C is proven by:

*Dok je soba mjerila 5 x 6 metara, slika je pala sa zida	*While the room measured 5 x 6 meters, the picture fell from the wall'

12. The difference between the verbs denoting psychological states and those indicating other non-permanent states is manifested, as we have seen, in the fact that the case of the former's surface subject is Experiencer and the latter's Object. This is of interest to us because it correlates with some interesting aspectual phenomena. The non-permanent statives whose surface subject is usually in the 'Object' deep-structure case may also be used as cursives - persons can engage in the activities of speaking, smelling, and eliciting something - while the psychological state verbs are only rarely used as cursives, *misliti* being the only such verb in our list of seven.

13. It will have been noticed that the entities 'stative', 'cursive', and 'totive' sometimes refer to (aspectual) verb categories or individual verbs, at other times to 'aspects'. This apparent inconsistancy is justified by the facts of SC aspect: a majority of SC verbs never change their aspect - there is thus no reason not to use the aspect label to refer to the verbs themselves in the context of this study; other verbs may change their aspect without a change in form - in such cases it is more appropriate to speak of a verb as being *of,* or being used *with,* a certain aspect.

14. Such an interpretation suggests that declarative sentences, in English and in language in general, may often *be interpreted* as involving the speaker to a greater degree than is implied by Ross's 'I declare to you that..' (Ross, 1970), although I would emphasize the optional nature of such interpretations. This seems to be particularly the case with sentences built around various 'subjective' verbs, such as *look (like)*, *resemble*, *taste*, *smell*. We can thus say, for example,

    To me, this milk tastes sour

    or we can leave out the 'to-me' part and still mean the same thing, but we cannot say:

    *To me, he arrived at the airport at 6 o'clock.

    Notice, however, that we can say 'This milk tastes sour' in order to state a fact totally independent of 'me', the speaker; in that case the 'to-me' part would neither be implied in deep structure nor possible in surface structure.

15. As this is a study of verbal aspect, we will concern ourselves with individual aktionsarten only in so far as they are interrelated with aspectual phenomena and help us characterize the difference between aspect and aktionsart.

16. This is elaborated in the chapter on English verbal aspect of my dissertation mentioned at the beginning of the paper.

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